PANASONIC KX-T3110

MODEL

SERVICE MANUAL

ORDER NO. KM48811764A1
F5

Service Manual

EASA-PHONE

ELECTRONIC MODULAR SWITCHING SYSTEM

KX-T123211

1. Please use this manual together with the service manual for model No. KX-T123210, order No. KM48712591C1.
2. This service manual indicates the main differences between; Original KX-T123210 and KX-T123211.
3. Technical Guide.....Refer to the KX-T123210 Technical Guide.

SPECIFICATIONS\ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ
CONNECTION\СОЕДИНЕНИЕ
INSTALLATION\УСТАНОВКА
PROGRAMMING\ПРОГРАММИРОВАНИЕ
EXTENSION BOARD CONNECTING METHOD\МЕТОДИКА ПОДСОЕДИНЕНИЯ СЕРВИСНЫХ ПЛАТ
SCHEMATIC DIAGRAMS\ПРИНЦИПИАЛЬНЫЕ СХЕМЫ
VOLTAGE OF IC'S AND TRANSISTORS\НАПРЯЖЕНИЕ НА ИНТЕГРАЛЬНЫХ МИКРОСХЕМАХ И ТРАНЗИСТОРАХ
IC I/O DATA\ДАННЫЕ МИКРОСХЕМЫ ВВОДА/ВЫВОДА
ADJUSTMENTS\РЕГУЛИРОВКИ
REPLACEMENT PARTS LIST\СПИСОК ЗАПАСНЫХ ЧАСТЕЙ

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Secaucus, New Jersey 07094

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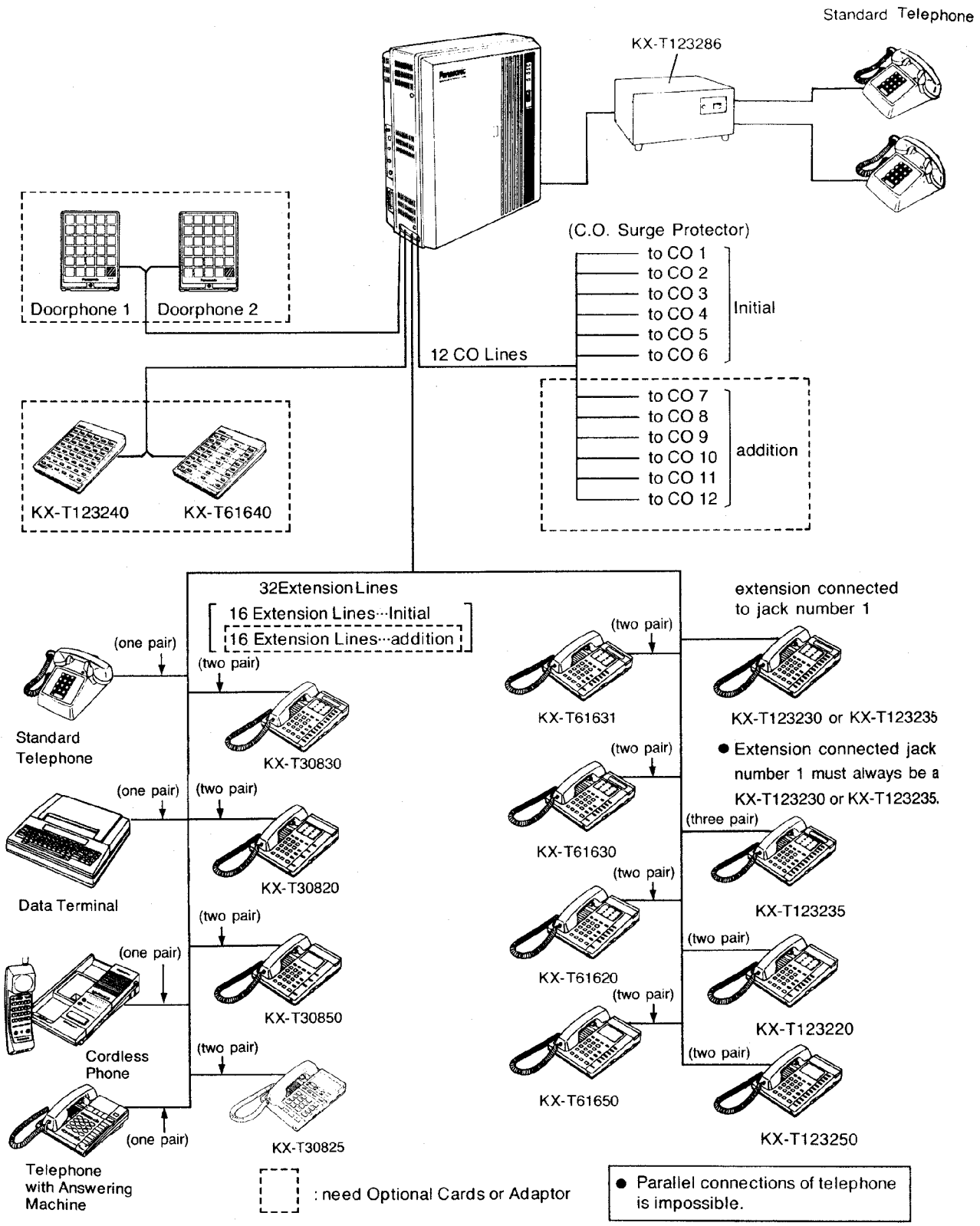
Panasonic

■ SPECIFICATIONS

(General Description)		
2. Control Method.....Stored program CPU: 8 bits CPU	➡	Stored program CPU: 16 bits CPU
4. Power Supplies.....Power Failure		Power Failure
System operation for several hours by recommended battery (car type batteries- consisting of two 12 VDC, 16 amp/hour maximum rating.)	➡	System operation for several hours by KX-A26 and recommended battery (car type batteries-consisting of two 12 VDC)
9. EXT Connection.....Cable 2 pair wire ---------	➡	KX-T30825 (Addition)
3 pair wire ---------		KX-T123235 (Addition)
(Characteristics)		
1. Station Loop Limit: ----------	➡	KX-T123235, KX-T30825 (Addition)
3. Maximum Number of Station Instruments per Line: ----------	➡	KX-T123235, KX-T30825 (Addition)
(Model KX-T123210)		(Model KX-T123211)

KX-T123211

■CONNECTION



(Model KX-T123211)

■ INSTALLATION

1. Model No. KX-T123210 → KX-T123211

2. For details of installation, refer to the Installation Manual (Part No. PQQX5668Z).

3. Printer Connection

Connection Chart:
KX-T123210 RS-232C — Printer RS-232C

Circuit Type (EIA)	Signal Name	Pin No.	Pin No.	Signal Name	Circuit Type (EIA)
AA	FG	1	1	FG	AA
BA	TXD	2	3	RXD	BB
BB	RXD	3	2	TXD	BA
CB	CTS	5			
CC	DSR	4,6	20	DTR	CD
AB	SG	7	7	SG	AB
CD	DTR	20	5	CTS	CB
			6	DSR	CC
			8	DCD	CF

(Model KX-T123210)

Connection Chart:
KX-T123211 RS-232C — Printer RS-232C

Circuit Type (EIA)	Signal Name	Pin No.	Pin No.	Signal Name	Circuit Type (EIA)
AA	FG	1	1	FG	AA
BA	TXD	2	3	RXD	BB
BB	RXD	3	2	TXD	BA
CB	CTS	5			
CC	DSR	6	20	DTR	CD
AB	SG	7	7	SG	AB
CD	DTR	20	5	CTS	CB
			6	DSR	CC
			8	DCD	CF

(Model KX-T123211)

■ PROGRAMMING

1. Model No. KX-T123210
   Model No. KX-T123230 ➡ Model No. KX-T123211
   Model No. KX-T123230 or KX-T123235

2. PROGRAMMING TABLE
   Page 13-17 ➡ Deletion
   [For details of programming, refer to the Installation Manual (Part No. PQQX5668Z) and EIA/Remote Programming Manual (Part No. PQQX5670Z).]

(Model KX-T123210) (Model KX-T123211)

■ EXTENSION BOARD CONNECTING METHOD

Extension Board (Part No. PQZZ2T123210) ➡ Extension Board (Part No. PQZZ1T123210)

(Model KX-T123210) (Model KX-T123211)

OPTIONAL CARD AND EXTENSION BOARD COMPARISON TABLE		
OPTIONAL CARD NO.	EXTENSION BOARD PART NO.	FIG.
KX-T123285 (Off Premise Extension Card)	PQZZ5T123210	A
KX-T123291 (Direct Inward System Access Cards)	PQZZT123291M	B
KX-T123292 (Outgoing Message Card)	PQZZT123291M	B
KX-T123295 (Diagnostic Card)	PQZZ5T123210	A
KX-T123296 (Modem Card)	PQZZ5T123210	A

(Model KX-T123211)

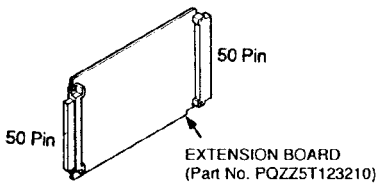


Fig. A

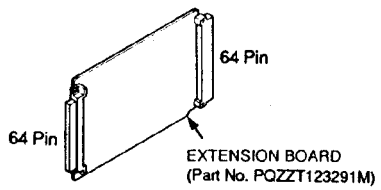


Fig. B

■ SCHEMATIC DIAGRAM

(POWER UNIT)

IC102
Q105,Q209-Q212
D110,D111,D212,D213
PC102
VR101
RL201
C114,C115,C116,C122,C123,C235
R118-R269

➡ Deletion

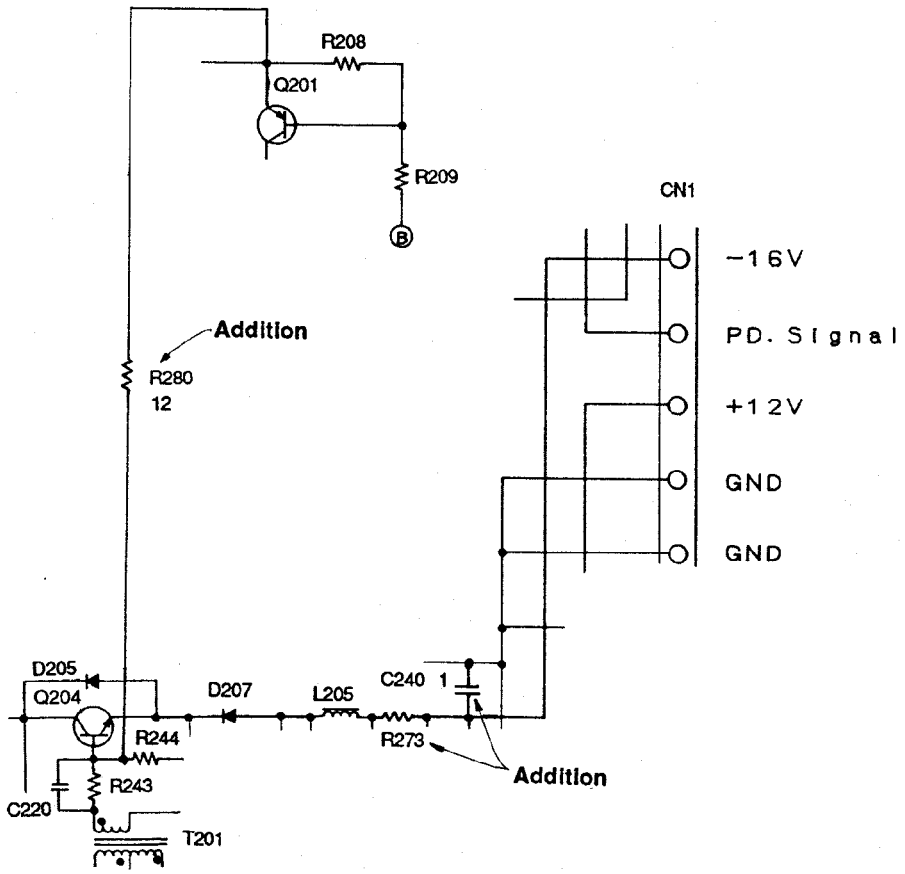
C109 1µF (Electrolytic)
R113 2.2kΩ
R204 18kΩ
R277 100Ω
R260 1.2kΩ

(Model KX-T123210)

➡

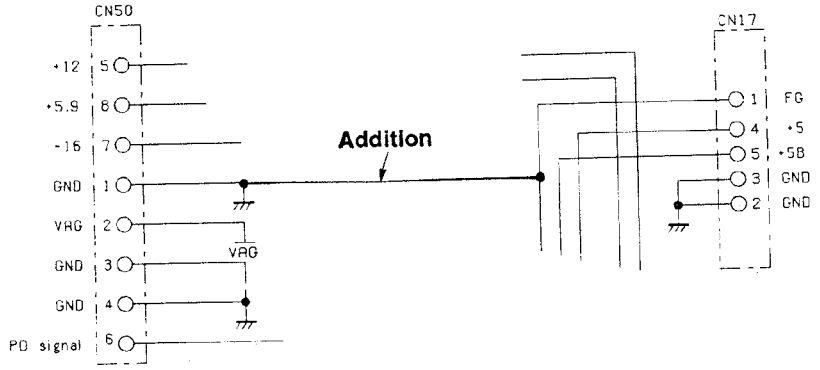
C109 0.1µF (Polyester)
R113 3.9kΩ
R204 20kΩ
R277 33Ω
R260 1kΩ

(Model KX-T123211)



(Model KX-T123211)

(POWER)



(Model KX-T123211)

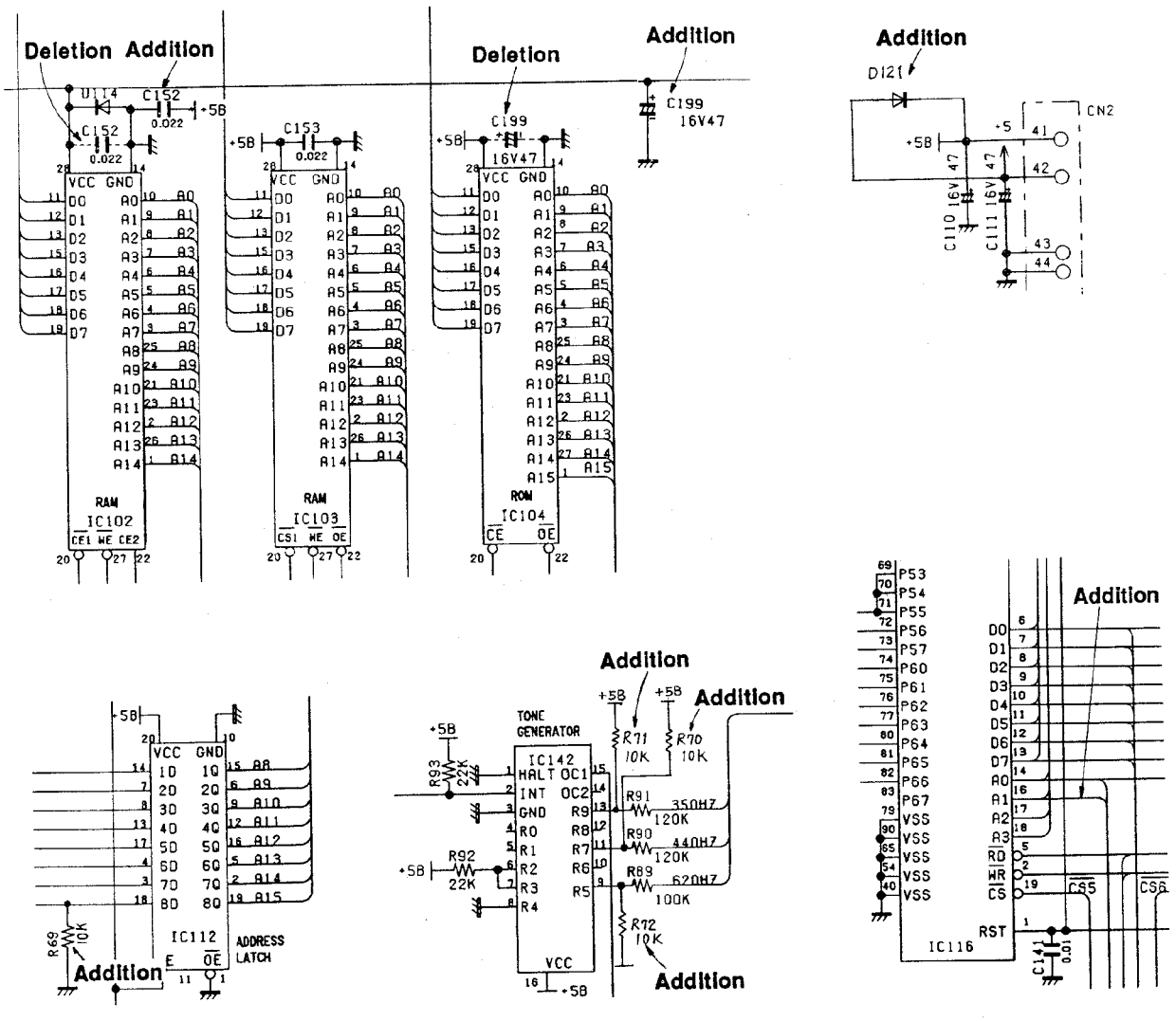
ZNR50 ➡ Deletion

(Model KX-T123210) (Model KX-T123211)

(CPU)

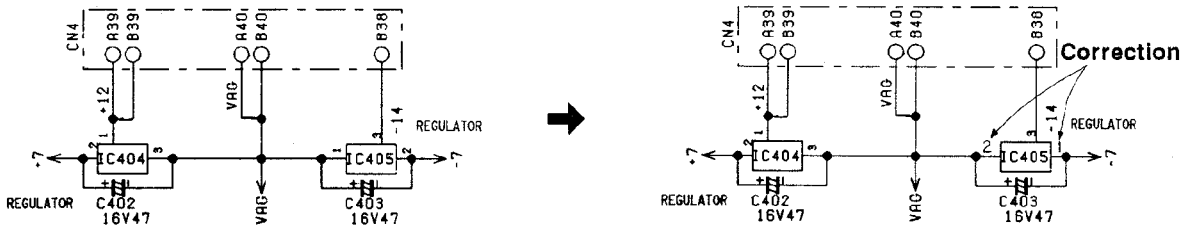
Q106, Q107, D101-D103, R95, R113, R114.....Deletion

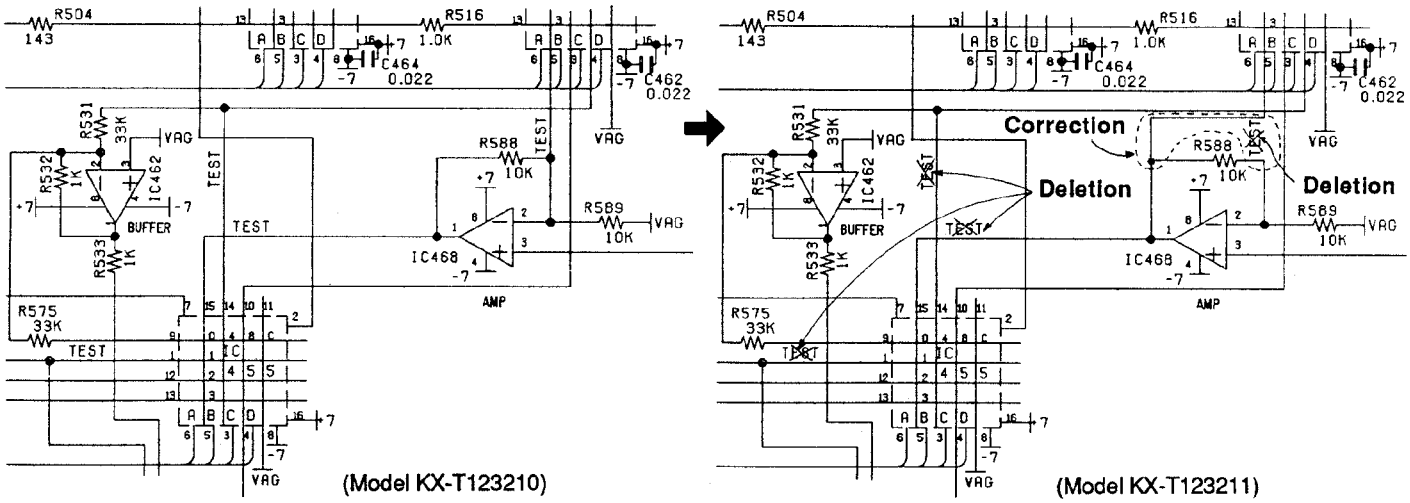
(Model KX-T123211)



(Model KX-T123211)

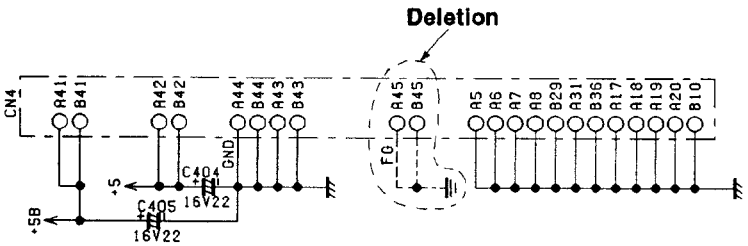
(CROSS POINT SWITCH)





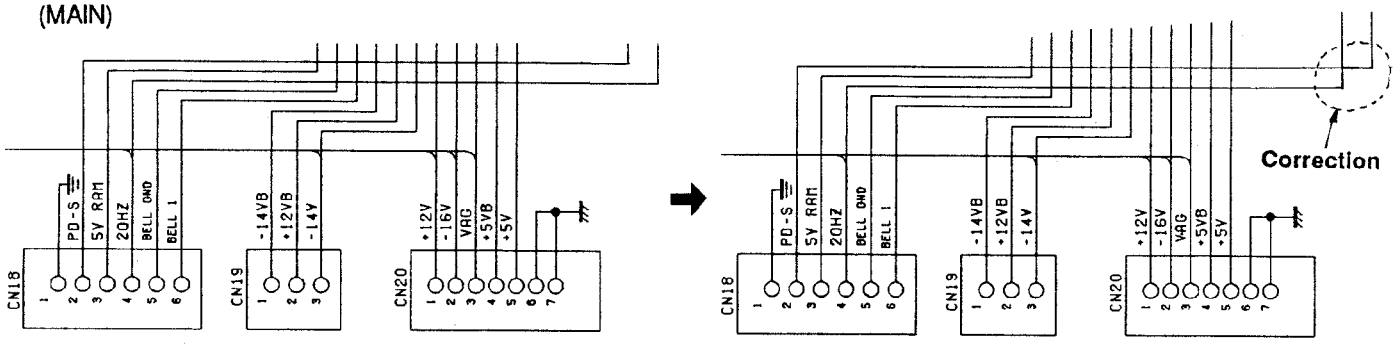
(Model KX-T123210)

(Model KX-T123211)



(Model KX-T123211)

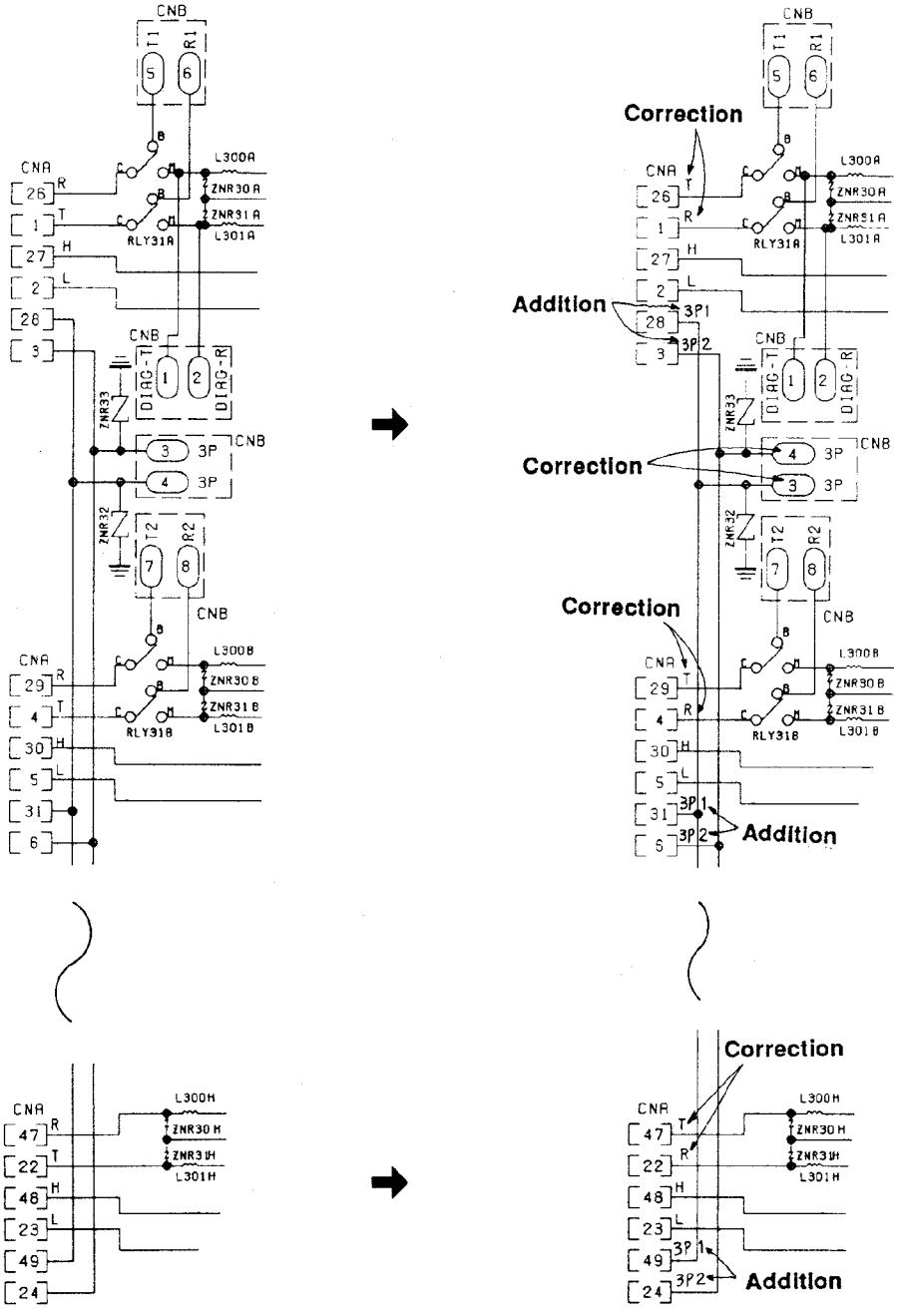
(MAIN)



(Model KX-T123210)

(Model KX-T123211)

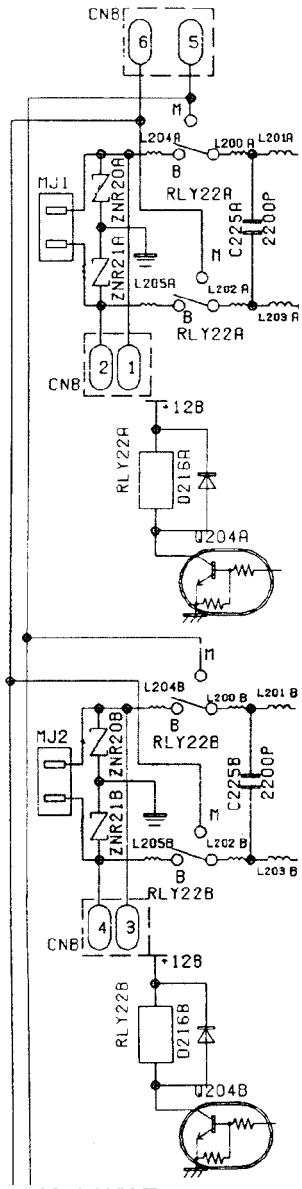
(LC1,2)



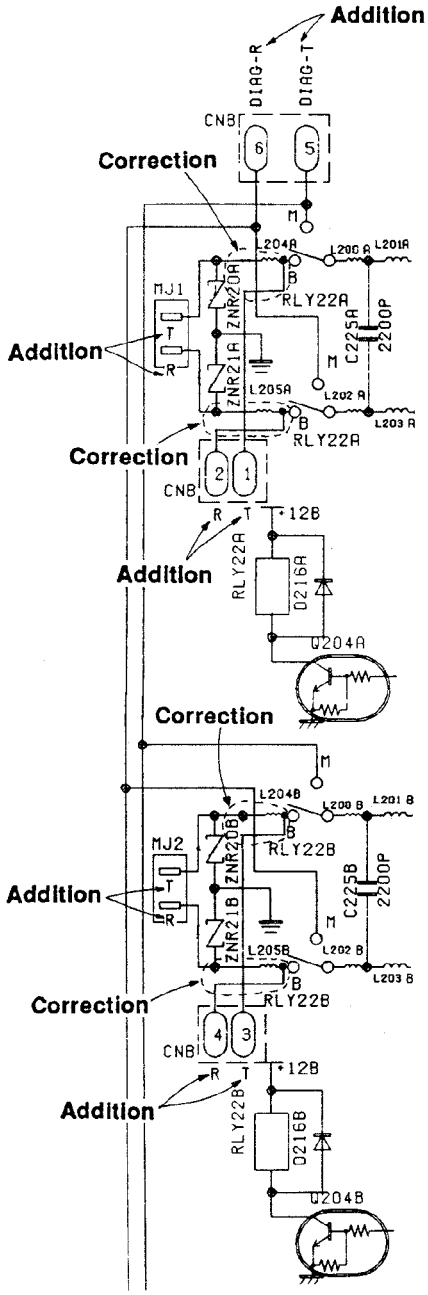
(Model KX-T123210)

(Model KX-T123211)

(CO-1)

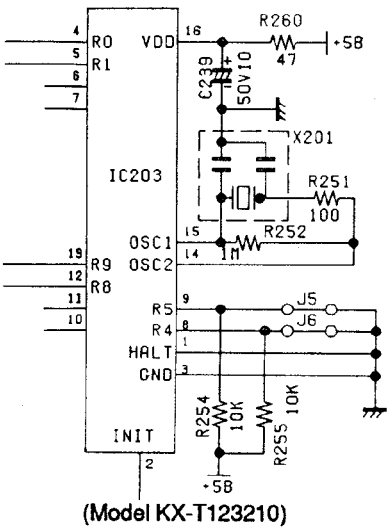


(Model KX-T123210)

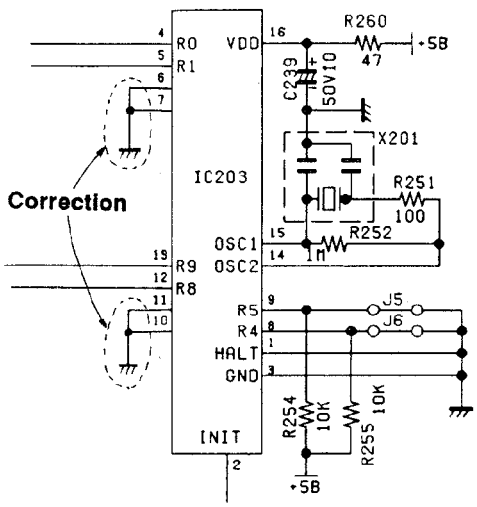


(Model KX-T123211)

(CO-2)

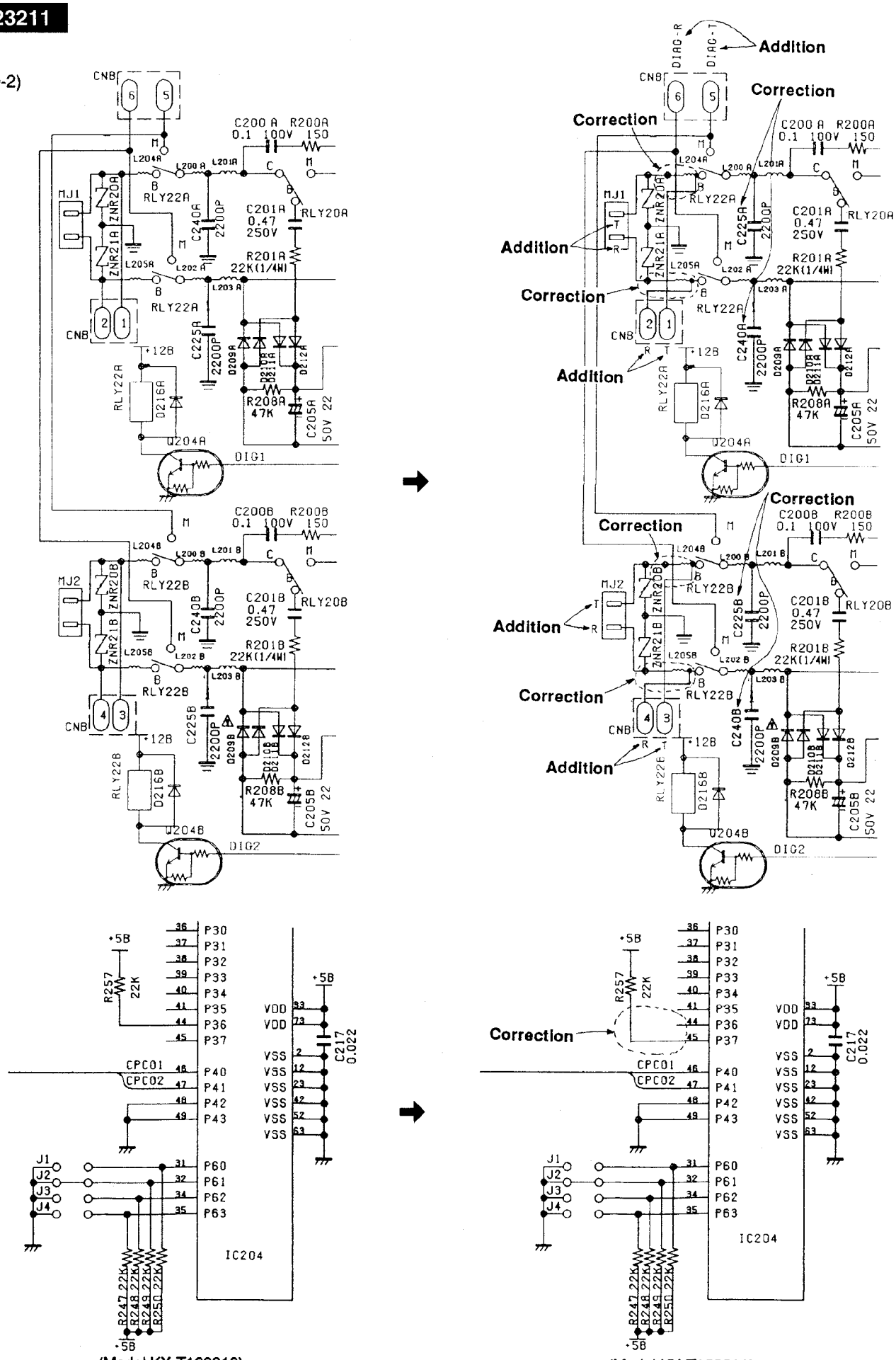


(Model KX-T123210)



(Model KX-T123211)

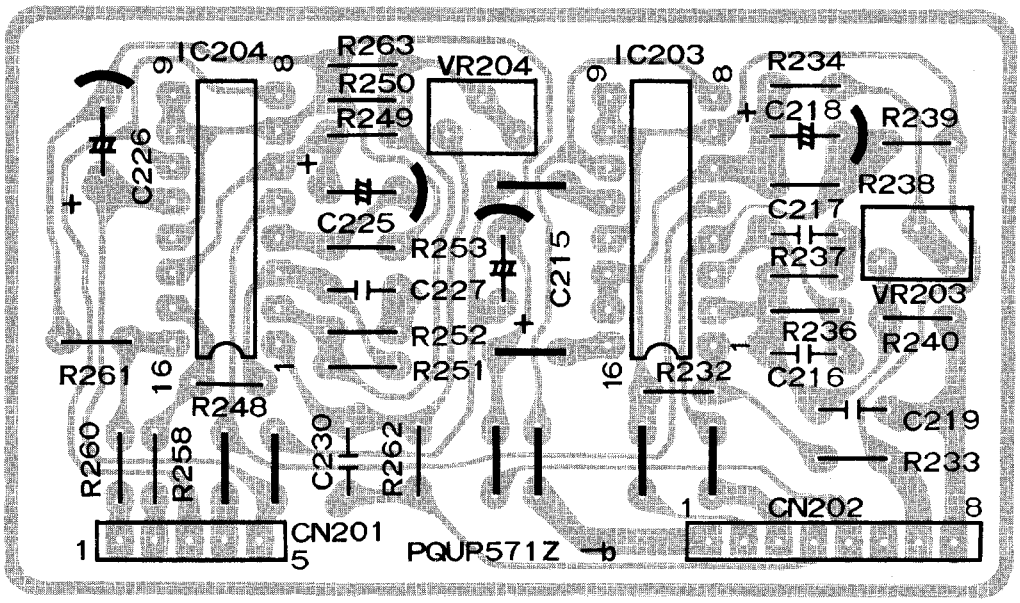
(CO-2)



(Model KX-T123210)

(Model KX-T123211)

(COMPONENT VIEW)



(Model KX-T123211)

■ VOLTAGE OF ICs AND TRANSISTORS

Notes:

1. DC voltage measurements are taken with oscilloscope from ground line.
2. Waiting condition.
3. Value is V.

1. POWER UNIT

(ICs)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC202	2.4	2.4	2.4	0	3 0	4	0	2	0	0	2	1	0	0.2	0	0
IC203	2.4	2.4	2.5	2.7	3 0	5	0	2	0	0	2	1	0	5	5	0
IC204	2.4	2.4	2.4	0	3 0	5	0	2	0	0	2	1	0	5	12	12

Pin No.	1	2	3	4	5	6	7	8
IC205	---	---	---	-20	-20	-20	---	5

(TRANSISTORS)

	E	C	B		E	C	B		E	C	B		E	C	B
Q202	1	0	---	Q203	0	1	0	Q207	1	0	---	Q208	0	1	0

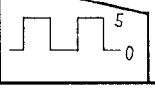
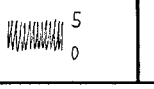
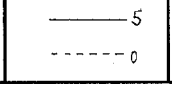
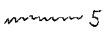
2. POWER

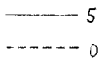
(TRANSISTORS)

	E	C	B		E	C	B		E	C	B		E	C	B
Q50	0	12	0	Q51	12	-0.4	12	Q52	0	-20	-0.4	Q53	-20	-0.4	-20

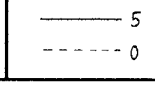
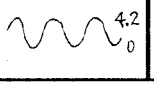
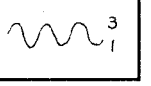
3. CPU

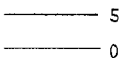
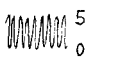
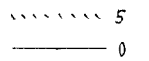
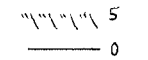
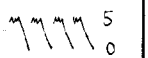
(ICs)

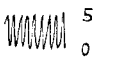
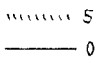
Pin No.	2	3-16,25,28,29,32,35-39	18,21	19	22	24
IC100			0			

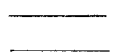
Pin No.	2-15, 17-21, 23, 25-29	22	24
IC101		5	

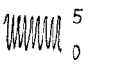
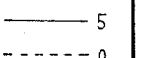
Pin No.	1-13, 15-19, 21, 23-27	22	IC102, IC103 pin 27
IC102 IC103 IC104			

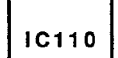
Pin No.	2, 8, 12	4, 5	7	10, 13	11	16	17
IC105			5	0	5		

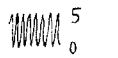
Pin No.	1	2-9	11, 12	13, 16, 17	14, 18	19
IC106						5

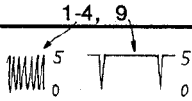
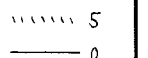
Pin No.	1-9, 11-18	19
IC107		

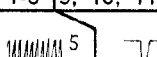
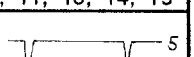
Pin No.	2, 10, 12, 15	3, 4, 9,1 1, 13, 14,
IC108		

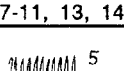
Pin No.	1-9, 11, 12, 14-18	13	19
IC109			

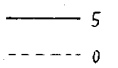
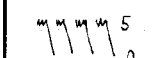
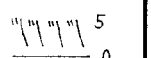
Pin No.	2, 4	3, 5, 7, 9, 11, 13, 15-18
IC110		

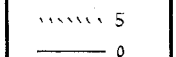
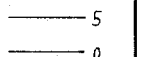
Pin No.	2-9, 11-19
IC111 IC112	

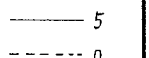
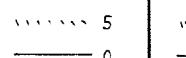
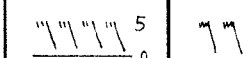
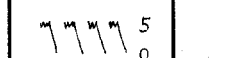
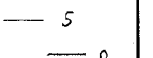
Pin No.	1-4, 9	5	6, 7	14, 15
IC113			5	

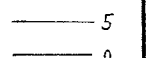
Pin No.	1-6	9, 10, 11, 13, 14, 15
IC114		

Pin No.	1, 3, 5, 7-11, 13, 14, 15, 17, 18-23
IC115	

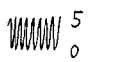
Pin No.	1,20,23,24,30-37,46,51,66,67,68,82,98,99,100	2, 5, 19	6, 10	7, 8, 11
IC116	0			

Pin No.	12, 13	14,16,17,18	22,25,26,47-50,52,57-64,69-77,80-81,84-89,91,92,97
IC116			5

Pin No.	1, 2, 3	4, 5	6, 9, 10	7, 11	16,20,21,23,25	17,18,19,24	22
IC117					5	0	

Pin No.	27
IC117	

Pin NO.	1, 4	2, 13	12
IC118			

Pin NO.	1-6	9-15
IC119		

KX-T123211

Pin No.	1, 2	3, 6, 7	4, 8	9, 15	10, 18	13	17	19, 20	21, 22, 23
IC120							5		

Pin No.	1, 6	3	5	7, 8	9, 12, 25	10, 11, 13	14, 15, 21, 24	17,19	22
IC121		5					0	5	

Pin No.	3,4,5,9,11-14	7	16
IC122	5		

Pin No.	1-4	7	8	10	11	12, 13	15, 16, 17
IC123 | IC125	2						0

Pin No.	1, 2, 3, 15	4-7	8, 10	12, 13	14	16	17
IC127	5					2	

Pin No.	1, 3	2
IC129	5	0

Pin No.	1,2,3,5,6,7
IC131	0

Pin No.	2	3, 6	4, 5	8, 11	9,10,12,13
IC132	2	---	5	12	0

Pin No.	1,4,7,10,13	3,6,8,11,14
IC133	0	5

Pin No.	1, 3, 14	2, 7	4,5,6,8,9,10
IC134	5	0	

Pin No.	1, 11, 12	2, 3, 13	4, 10	5, 8	6, 9
IC135	5	0			

Pin No.	1,2,6,9,10,13,14	3, 7, 8	4	5, 12	11
IC136	5	0			

Pin No.	2, 7, 9	3, 11, 13	5	6	14, 18
IC137	0				5

Pin No.	1,3,6,7,8	2, 10, 14	4	5	9, 11	12	13
IC138	0	5		1	4		

Pin No.	1	2	3	4	5, 6	8, 12	9, 13
IC139			5	0			

Pin No.	1, 4, 5, 7, 13	2,3,10,12,14	8, 9	11
IC140	0	5	5 / 0	0.2

Pin No.	1,3 ,	2
IC141	5	0

Pin No.	2	6, 7	9, 11, 13	15
IC142	0	5	5 / 0	5 / 0

(TRANSISTORS)

	E	C	B		E	C	B		E	C	B		E	C	B
Q100	0	5	0	Q101	0	11	0	Q102	0	11	0	Q103	0	0	5

	E	C	B		E	C	B		E	C	B		E	C	B
Q105	0	0.2	12	Q108	5	0	5	Q109	5	0	5	Q110	0	0	5

	E	C	B
Q111	12	12	0

4. CROSS POINT SWITCH

(ICs)

Pin No.	1-4,25,35,37-40	5, 6, 36	8, 9	12-24	27-34
IC400	0	4.2 / 0	4 / 0	5	0.2

Pin No.	1-6, 8, 9, 19	7	11-18
IC401	5 / 0	4 / 0	0.2

Pin No.	1, 3	2, 4	5	6,7,8,10,12	9	11, 13, 14
IC402	5 / 0	4 / 0	5	0	0.6	5

Pin No.	1,4,9,10,13,15	2	3, 6	7	8
IC403	5	5 / 0	4.2 / 0	0	4

Pin No.	1-6	11-16	Pin No.	1, 2	3-6	11-16	Pin No.	1, 2, 3	4	5, 6	11-16
IC406	0	-7	IC407	0	5	-7	IC408	5	0	5	-7

Pin No.	1,2,3	4	5	6	11-16	Pin No.	1,2,12,13-21	3,22	4-9
IC409	5	0	4	0	-7	IC410 | IC437	0	7	6

Pin No.	2,17,18,20,21	3	4-9	Pin No.	1, 9-15	2-6	Pin No.	1,7,10-15	2-9
IC438 | IC445	0	7	6	IC447 IC451 IC448 IC453 IC450 IC454	0	6	IC456	0	6

Pin No.	1,2,3,5,6,7	Pin No.	1-4,8,9,11	5	6, 12	10	13
IC461 IC468 | IC469 IC466	0	IC467	4	4	-7	5	6.4

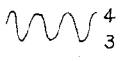
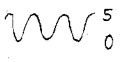
(TRANSISTORS)

	E	C	B		E	C	B		E	C	B		E	C	B
Q400	---	7	0	Q401	0	0	---	Q402	4	7	5	Q404	5	5	0

5. LC1,2

(ICs)

Pin No.	1,3,5,17	4,19,21,22,34-41,43-50,73	6-11	13	14,16,24-31,51,53,64,65,80	15	20
IC300	4	5	0.2	4.2	0	4.2	1

Pin No.	75	76
IC300		

Pin NO.	1,3,4,6,8,9,11,13	2,5,10,12	Pin No.	1,2,3,5-9,11,19	4,12	13-18
IC301 IC302	0	5	IC303	5	4	0.2

Pin No.	1,3,9	2,4,5,8,11,12	6, 10	13	Pin No.	3-9,11,13,15	12,14,16,17
IC304	5	0	4.2	1	IC305	5	4

(TRANSISTORS)

	E	C	B		E	C	B		E	C	B		E	C	B
Q300A | Q300H	12	12	12	Q301A | Q301H	12	12	12	Q302A | Q302H	-14	---	-14	Q303A | Q303H	-14	-14	-14

	E	C	B		E	C	B		E	C	B		E	C	B
Q304A | Q304H	---	5	---	Q305A | Q305H	0	5	0	Q306A | Q306H	5	0	5	Q307A | Q307H	0	12	0

	E	C	B		E	C	B
Q311A Q311B	0	12	5	Q312A Q312B	12	0	12

6. CO-1,2

(ICs)

Pin No.	1,2,3,5,6,7	Pin No.	1, 9, 16	2,3,6,7,8,10,11,14,15
IC200A IC201A | | IC200D IC201D	0	IC202A | IC202D	5	0

Pin No.	1,2,3,8,9,12,13	4, 5, 16	14	15
IC203	0	5		

Pin No.	1,6,7,8,10,15 16,17,19,46,47	4,5,9,11,13,14,18,19,30,31 32,34,35,45,70,71,72,74,75	65, 66, 67	68, 69, 76	77-80
IC204	0	5	4.5 0	5 0	4 0

Pin No.	1	2-6,8,9	7	11, 17, 18	12-16
IC205	5 0.4	5 0	4 0.4	5 0	0

Pin No.	1, 4, 10	2, 5, 9	3, 6, 8	11, 12, 13
IC206	5	5 0.4	4.5 0	0

Pin No.	1,3,5,11	2,4,6,10	8	12	13
IC207	5 0	4 0	5	0	5

(TRANSISTORS)

	E	C	B		E	C	B		E	C	B
Q202A | Q202D	0	12	0	**Q203A | Q203D**	0	12	0	**Q204A | Q204D**	0	12	0

■ IC/IO DATA

Explanation of ICs (Addition)

1. IC116 . . . . . This IC is for 8-bit expansion I/O ports and has nine 8-bit general-purpose I/O ports.

2. IC104 . . . . . This IC is for 8-bit expansion I/O ports and has six 8-bit general-purpose I/O ports and one 4-bit input port.

3. IC300 . . . . . This IC has: (1) one 8-bit input port
   (2) one 8-bit output port
   (3) 8-channel input and output ports for extension data communication
   (4) 4 output ports (BR0–BR3) for noise control for the doorphone 2 channel and the external paging 2 channel.

4. IC400 . . . . . This 8255-byte IC is used in the extended I/O mode (mode 0).

■ ADJUSTMENT (Model KX-T123211)

OSCILLATION PERIOD ADJUSTMENT

Perform the following adjustment after replacing IC127.

1. Attach the Diagnostic Card (Model KX-T123295) at the KX-T123211. (See Fig. 33)
2. Connect the AC cord to the AC outlet (AC 120V, 60Hz).
3. Set the Power Switch to ON.
4. Set the System Program Switch to "EIA" position. (See Fig. 31)
   (After adjustment, return the System Program Switch to "SET" position.)
5. Reciprocal light the Day and Night Indicators.
6. Connect the KX-T123211 and Parsonal Computer (or Data Terminal) by RS-232C cable.
7. Press the Data Key of the Parsonal Computer (or Data Terminal).

8.

```
; Welcome to KX-T123211 on-site administration
;                    ver 2.0 Panasonic CO., LTD

; ** Jan. 1. 1988 12:00' AM **

; The "HLP" display command informations

;> DIG
```

Picture of Parsonal Computer (or Print of Data Terminal)

9. Input the DIG and press the Return Key.

10.

```
;>DIG

; Diagnostic mode start

; ** Jan. 1. 1988 12:00' AM **

;D>PRO
```

Picture of Parsonal Computer (or Print of Data Terminal)

11. Input the PRO and press the Return Key.
12. Connect the frequency counter. (See Fig. 32)
13. Set the frequency counter to "PERIOD" position.
14. Adjust VC100 for a reading of ( ) msec on the frequency counter.

Room temperature for adjusting (°C)	Period value (msec)	Room temperature for adjusting (°C)	Period value (msec)
14~14.9	15.624943 (±0.00001)	20~20.9	15.624880 (±0.00001)
15~15.9	15.624933 (±0.00001)	21~21.9	15.624876 (±0.00001)
16~16.9	15.624922 (±0.00001)	22~27.9	15.624870 (±0.00001)
17~17.9	15.624910 (±0.00001)	28~28.9	15.624876 (±0.00001)
18~18.9	15.624899 (±0.00001)	29~29.9	15.624880 (±0.00001)
19~19.9	15.624888 (±0.00001)		

15.

```
;>DIG
; Diagnostic mode start
; ** Jan. 1. 1988 12:00' AM **
;D>PRO
END
;D>END
```

Picture of Parsonal Computer
(or Print of Data Terminal)

16. Input the END and press the Return Key.

Notes: RS-232C
(Default Parameter)
1) Baud Rate: 1200 bps 2) Data Length: 7 bits 3) Stop Bit: 1 stop 4) Prity: Mark

However, this can be changed by programming. If it has been changed, follow the procedures according to the changes or execute "System All Clear".
Refer to the connection chart on page 3 for the connection of the RS-232C connector.

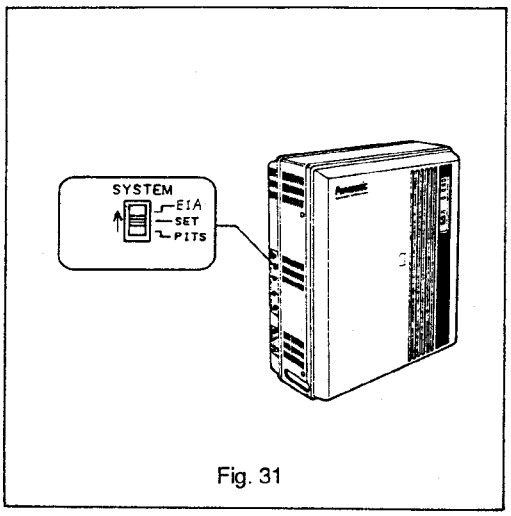


Fig. 31

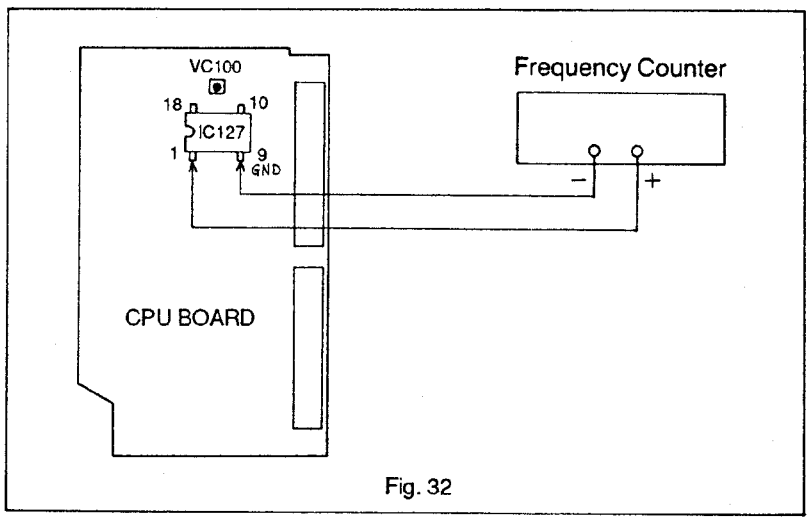


Fig. 32

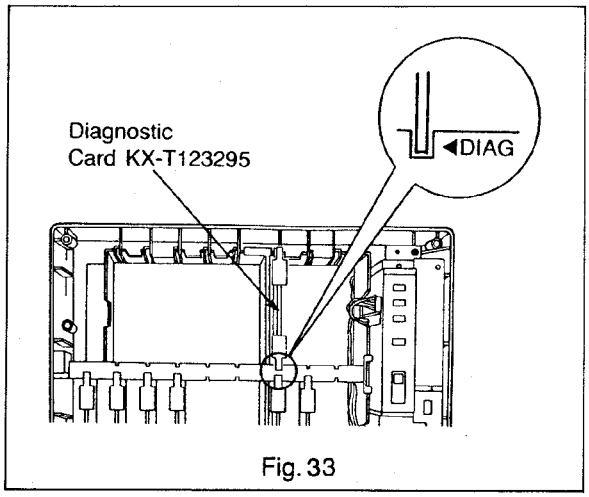


Fig. 33

REPLACEMENT PARTS LIST

Notes: Model KX-T123211

1. The * mark indicates the changes from the KX-T123210.
2. Printed circuit board assembly and power unit with mark (NLA) is no longer available after production discontinuation of the complete set.
3. Important safety notice.
   Components identified by the ⚠ mark special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
4. The S mark indicates service standard parts and may differ from production parts.
5. RESISTORS & CAPACITORS
   Unless otherwise specified.
   All resistors are in ohms(Ω) k=l000Ω,M=l000kΩ
   All capacitors are in MICRO FARADS(μF) P= μμF
   *Type &Wattage of Resistor
   Type

ERC:Solid	ERX:Metal Film	PQRD:Carbon
ERD:Carbon	ERG:Metal Oxide	PQRQ:Fuse
PQ4R:Chip	ER0:Metal Film	ERF:Wire Wound

Wattage

10,16,18:1/8W	14,25,S2:1/4W	12,50,S1:1/2W	1:1W	2:2W	5:5W

*Type & Voltage of Capacitor
Type

ECFD:Semi-Conductor	ECCD,ECKD,PQCBC,PQVP : Ceramic
ECQS:Styrol	ECQM,ECQV,ECQE,ECQU,ECQB : Polyester
PQCBX,ECUV:Chip	ECEA,ECSZ,ECOS : Electrolytic
ECMS:Mica	ECQP : Polyproplylene

Voltage

ECQ Type	ECQG ECQV Type	ECSZ Type	Others	
1H: 50V	05: 50V	OF:3.15V	OJ :6.3V	1V :35V
2A:100V	1:100V	1A:10V	1A :10V	50,1H:50V
2E:250V	2:200V	1V:35V	1C :16V	1J :63V
2H:500V		OJ:6.3V	1E,25:25V	2A :100V

Ref. No.	Part No.	Part Name & Description		Pcs
		CABINET & ELECTRICAL PARTS		
K1	PQYFT123210M	Front Cabinet Assembly		1
K2	PQYMT123211M	Cabinet Body Assembly	*	1
K2-1	PQGT404Z	Name Plate	*	1
K3	PQYUT123210M	Rear Cover Assembly		1
K4	PQGG52Z	LED Grille		1
K5	PQGK54Z	Indication Plate		1
K6	PQUV66Z	Cover		1
E1	P-01H-F2G1	Ni-Cd Battery		1
E2	PQLT1U9M1A	Bell Transformer		1
E3	RME143Z	Cord Band		3
E4	RME144Z	Cord Band		2
		ACCESSORIES AND PACKING MATERIALS		
A1	PQHE17Z	Mounting Bracket (Curl Plug)	*	3
A2	PQHE5014Z	Mounting Bracket (Screw)	*	3
A3	PQQX5668Z	Installation Manual	*	1
A4	PQQX5669Z	User Guide	*	1
A5	PQQX5670Z	EIA/Remote Programming Manual	*	1
A6	PQQX9266Z	Additional Features for Original Operating Instructions	*	1
A7	PQQX9267Z	Station User Guide	*	1
A8	PQHR133Z	Band	*	2
A9	XSN4x40+28FY	Screw	*	4
P1	PQPK649Z	Packing Case	*	1
P2	PQPN9039Z	Pad Complete		1
P3	PQPE101Z	Pad		1
P4	PQPP118Z	Protection Cover (for Unit)		1

Ref. No.	Part No.	Part Name & Description		Pcs
		MAIN BOARD PARTS		
PCB1	PQWP1T123210	Main P.C. Board Ass'y (NLA)		1
		(DIODES)		
D10,13	LN220RPH	LED		2
D11	LN420YPH	LED		1
D12	LN320GPH	LED		1
		(TRANSFORMERS & COILS)		
T1,2,3	PQLT2D6B	Transformer		3
L1,2,4, L5,7-9, L11,13	PQLQZM2R2M	Choke Coil		9
L3,6	PQLQZM4R7K	Choke Coil	S	2
		(SWITCHES)		
SW	EVQQJH12T	Switch, Reset		1
SW	PQSS3A14Z	Switch, Mode		1
		(RESISTORS)		
R1-14	ERD16TJ103	10k		14
R15-17	ERD16TJ821	820		3
R19-22	ERD16TJ821	820		4
		(JACKS & CONNECTORS)		
JA1,2	PQJJ1E1Y	Jack, Paging		2
JA3	RJJ19Y	Jack, Earphone		1
CN1-3, 6A-6D, 8A-8C	PQJS45S30Z	Connector, 45P		10
CN4	PQJS90S30Z	Connector, 90P		1
CN5A-5D,7A-7C	PQJS8S32Z	Connector, 8P		7
CN9, 10A, 10B,11	PQJS64S30Z	Connector, 64P		4
CN12-CN15	PQJS50S33Z	Connector, 50P		4
CN16	PQJS5R31Z	Connector, 5P	S	1
CN17	PQJS5R32Z	Connector, 5P		1
CN18	PQJS6R31Z	Connector, 6P		1
CN19, CN20	PQJS10R31Z	Connector, 10P		2
CN21	PQJS25P31Z	Socket, EIA		1
CN22	PQJS2L44Z	Connector, 2P		1
J26	PQJP5D13Z	Connector, 5P		1
		CPU BOARD PARTS		
PCB2	PQWP2T123211	CPU P.C. Board Ass'y (NLA)	*	1
		(ICs)		
IC100	PQVIMS80C88	IC		1
IC101/ IC104	PQWIT123211M	IC (ROM Kit)	*	1
IC102	PQVIPD43257C	IC	* S	1
IC103	PQVIHM62256L	IC	S	1
IC105	PQVIMS8C84A2	IC	S	1
IC106	PQVIM7H245P	IC		1
IC107	PQVIM7H245P	IC		1
IC108	PQVIM7H174P	IC		1
IC109	PQVIHD7L640P	IC		1
IC110	PQVIHD7L240P	IC		1
IC111	PQVIM7H373P	IC		1
IC112	PQVIM7H373P	IC		1
IC113	PQVIM7H137P	IC		1
IC114	PQVIHD7L138P	IC		1
IC115	PQVIHD7L154P	IC		1
IC116	PQVI63HB110	IC		1
IC117	PQVIMS8C59A2	IC	S	1
IC118	PQVIM7H107P	IC		1
IC119	PQVITC7H138P	IC	S	1
IC120	PQVIPD71054C	IC	S	1
IC121	PQVIPD71051C	IC	S	1

Ref. No.	Part No.	Part Name & Description		Pcs
IC122	PQVILR4089	IC		1
IC123, IC124, IC125	PQVIMT8870BC	IC		3
IC126	Not Used			
IC127	PQVIMS6242BS	IC		1
IC128	Not Used			
IC129	PQVIPS520C	IC		1
IC130	Not Used			
IC131	PQVINJM4558D	IC		1
IC132	PQVIHD75188P	IC		1
IC133	PQVIHD75189P	IC		1
IC134	PQVIM7H32P	IC		1
IC135	PQVIM7H02P	IC		1
IC136	PQVITC7H00P	IC	S	1
IC137	PQVITC7H04P	IC	S	1
IC138	PQVIHD7LS04P	IC		1
IC139	PQVITC7H04P	IC	S	1
IC140	PQVITC7H04P	IC	S	1
IC141	PQVIPS520C	IC		1
IC142	PQVIBU3140	IC		1
		(TRANSISTORS)		
Q100-Q103	DTC124EA	Transistor (Si)		4
Q104	Not Used			
Q105	2SC2021	Transistor (Si)		1
Q106	Not Used		*	
Q107	Not Used		*	
Q108	DTA124EA	Transistor (Si)		1
Q109	DTA124EA	Transistor (Si)		1
Q110	DTC124EA	Transistor (Si)		1
Q111	DTA143XA	Transistor (Si)		1
		(DIODES)		
D100	MA4091	Diode (Si)		1
D101	Not Used		*	
D102, 103	Not Used		*	
D104	1SS131	Diode (Si)		1
D105	Not Used			
D106	Not Used			
D107-D115	1SS131	Diode (Si)		9
D116	Not Used			
D117-D121	1SS131	Diode (Si)		5
VD100	PQVD1SV124	Diode (Si)		1
		(TRIMMER)		
VC100	PQCVTZB30B	Trimmer		1
		(COMPONENT COMBINATIONS)		
CA101	PQXF4WB04	Capacitor Array		1
Z108	EXBP84103K	Resistor Array	S	1
		(CRYSTAL OSCILLATORS)		
X100	PQWET123210M	Crystal Oscillator Assembly		1
X101	Not Used			
X102	PQVCX3579H5R	Crystal Oscillator		1
X103	PQVCL3276N4Z	Crystal Oscillator		1
		(THERMISTERS)		
TH100	PQRRTS104U	Thermister		1
TH101	PQRRTS203U	Thermister		1
		(COILS)		
L100-L103	PQLQZM1R5M	Choke Coil		4
L104	PQLQZM2R2M	Choke Coil		1
L105	PQLQZM2R2M	Choke Coil		1

Ref. No.	Part No.	Value		Pcs
		(RESISTORS)		
R68	ERD16TJ220	22		1
R69-72	ERD16TJ103	10k		4
R73	ERD16TJ101	100		1
R74	ERD16TJ221	220		1
R75-77	ERD16TJ151	150		3
R78	ERD16TJ101	100		1
R79-88	ERD16TJ103	10k		10
R89	ERD16TJ104	100k		3
R90,91	ERD16TJ124	120k		2
R92,93	ERD16TJ223	22k		2
R94	ERD16TJ103	10k		1
R95	Not Used		*	
R96	ERD16TJ103	10k		1
R97	Not Used			
R98,99	ERD16TJ103	10k		2
R100	ERD16TJ683	68k		1
R101	ERD16TJ103	10k		1
R102	ERD16TJ103	10k		1
R103-R106	ERD16TJ102	1k		4
R107	ERD16TJ103	10k		1
R108	ERD16TJ103	10k		1
R109	ERD16TJ471	470		1
R110	ERD16TJ472	4.7k		1
R111	ERD16TJ223	22k		1
R112	ERD16TJ683	68k		1
R113	Not Used		*	
R114	Not Used		*	
R115	ERD16TJ223	22k		1
R116-R119	ERD16TJ103	10k		4
R120-R122	ERD16TJ223	22k		3
R123-R140	ERD16TJ103	10k		18
R141-R146	ERD16TJ102	1k		6
R147-R152	ERD16TJ103	10k		6
R153-R156	ERD16TJ102	1k		4
R157-R159	ERD16TJ103	10k		3
R160-R163	ERD16TJ183	18k		4
R164	ERD16TJ103	10k		1
R165	ERD16TJ184	18k		1
R166	ERD16TJ183	18k		1
R167	ERD16TJ394	390k		1
R168	ERD16TJ103	10k		1
R169	ERD16TJ183	18k		1
R170	ERD16TJ103	10k		1
R171	ERD16TJ333	33k		1
R172-R175	ERD16TJ103	10k		4
R176	ERD16TJ154	150k		1
R177	ERD16TJ105	1M		1
R178	ERD16TJ223	22k		1
R179	ERD16TJ223	22k		1
R180	ERD16TJ472	4.7k		1
R181	ERD16TJ104	100k		1
R182	ERD16TJ333	33k		1
R183	ERD16TJ334	330k		1
R184	ERD16TJ104	100k		1
R185	ERD16TJ333	33k		1
R186	ERD16TJ334	330k		1
R187	ERD16TJ104	100k		1
R188	ERD16TJ333	33k		1
R189	ERD16TJ334	330k		1
R190-R199	ERD16TJ103	10k		10

Ref. No.	Part No.	Value, Part Name & Description		Pcs
		(CAPACITORS)		
C100	ECEA1HU4R7	4.7		1
C101	ECEA1HU100	10	S	1
C102	Not Used			
C103	ECEA1HU100	10	S	1
C104	ECEA1HU100	10	S	1
C105	ECEA1CSS102	1000		1
C106	ECEA1HN3R3S	3.3		1
C107-C109	ECEA1HU100	10	S	3
C110	ECEA1EU470	47	S	1
C111	ECEA1EU470	47	S	1
C112-C119	Not Used			
C120	ECQV1H104JZ	0.1		1
C121	ECQV1H104JZ	0.1		1
C122	Not Used			
C123	Not Used			
C124	ECCD1H150JC	150P		1
C125	ECCD1H150JC	150P		1
C126	Not Used			
C127	Not Used			
C128	Not Used			
C129	ECQM1H472JV	0.0047		1
C130	ECFD1C104KD	0.1		1
C131	ECQV1H104JZ	0.1		1
C132	ECFD1C104KD	0.1		1
C133	ECQV1H104JZ	0.1		1
C134	ECFD1C104KD	0.1		1
C135	ECQV1H104JZ	0.1		1
C136	Not Used			
C137	Not Used			
C138	ECFD1C104KD	0.1		1
C139	ECKD1H103KB	0.01		1
C140	Not Used			
C141	ECKD1H103KB	0.01		1
C142	ECKD1H102JA	0.001		1
C143	ECKD1H102JA	0.001		1
C144-C149	Not Used			
C150-C153	ECKD1H223MD	0.022		4
C154	Not Used			
C155	ECKD1H223MD	0.022		1
C156	ECKD1H223MD	0.022		1
C157	Not Used			
C158-C161	ECKD1H223MD	0.022		4
C162-C165	Not Used			
C166-C175	ECKD1H223MD	0.022		10
C176	Not Used			
C177	ECEA1EU470	47	S	1
C178	Not Used			
C179	ECKD1H223MD	0.022		1
C180	Not Used			
C181	ECKD1H223MD	0.022		1
C182	Not Used			
C183	ECKD1H223MD	0.022		1
C184	ECKD1H223MD	0.022		1
C185-C189	Not Used			
C190	ECKD1H223MD	0.022		1
C191	ECKD1H223MD	0.022		1
C192-C196	Not Used			
C197	ECCD1H150JC	15P		1
C198	ECCD1H150JC	15P		1
C199	ECEA1EU470	47		1
		(OTHERS)		
1	PQDF996Z	Shaft		2
2	PQUB11Z	Palstic Parts, Latch		2
3	PQME52Z	Plastic Parts, Stopper		4
CNA	PQJP14D49Z	Connector, 14P		1
CN1,2	PQJP45S30Z	Connector, 45P		2

Ref. No.	Part No.	Value, Part Name & Description		Pcs
		CROSS POINT SWITCH BOARD PARTS		
PCB3	PQWP3T123210	Cross Point Switch P.C. Board Ass'y (NLA)		1
		(ICs)		
IC400	PQVIPD71055C	IC	S	1
IC401	PQVIHD7L640P	IC		1
IC402	PQVIHD7LS04P	IC		1
IC403	PQVIHD7LS08P	IC		1
IC404	AN78L07	IC		1
IC405	AN79L07	IC		1
IC406-IC409	PQVITD62706P	IC		4
IC410-IC445	PQVIM402101P	IC		36
IC446	Not Used			
IC447	PQVIPD22100C	IC	S	1
IC448	PQVIPD22100C	IC	S	1
IC449	Not Used			
IC450	PQVIPD22100C	IC	S	1
IC451	PQVIPD22100C	IC	S	1
IC452	Not Used			
IC453-IC456	PQVIPD22100C	IC	S	4
IC457-IC460	Not Used			
IC461-IC466	PQVINJM4558D	IC		6
IC467	PQVIPD4066BC	IC	S	1
IC468	PQVINJM4558D	IC		1
IC469	PQVINJM4558D	IC		1
		(TRANSISTORS)		
Q400	2SC2021	Transistor (Si)		1
Q401	2SC2878	Transistor (Si)		1
Q402	DTC124EA	Transistor (Si)		1
Q403	Not Used	Transistor (Si)		
Q404	DTA124EA	Transistor (Si)		1
		(DIODES)		
D400-D435	1SS131	Diode (Si)		36
D436	MA4047	Diode (Si)		1
D437	MA4047	Diode (Si)		1
D438	1SS131	Diode (Si)		1
D439	1SS131	Diode (Si)		1
		(COMPONENT COMBINATIONS)		
Z400-Z403	EXBP86103K	Resistor Array	S	4
		(TRANSFORMER)		
T400	ETA14Y85AY	Transformer		1
		(RESISTORS)		
R400	ERD16TJ103	10k		1
R401	ERD16TJ103	10k		1
R402	Not Used			
R403	ER016CKF1180	118		1
R404-R424	ERD16TJ103	10k		21
R425-R427	ERD16TJ472	4.7k		3
R428	ERD16TJ223	22k		1
R429	Not Used			
R430-R460	ER016CKF1180	118		31
R461-R492	ER016CKF1021	1.02k		32
R493-R504	ER016CKF1430	143		12
R505-R516	ER016CKF1001	1k		12

Ref. No.	Part No.	Value		Pcs
R517	ER016CKF1151	1.15k		1
R518	ER016CKF1151	1.15k		1
R519	Not Used			
R520	Not Used			
R521	ER016CKF3401	3.4k		1
R522	ER016CKF3401	3.4k		1
R523-R527	ER016CKF3921	3.92k		5
R528	ERD16TJ104	100k		1
R529	ERD16TJ223	22k		1
R530	ERD16TJ333	33k		1
R531	ERD16TJ333	33k		1
R532	ERD16TJ102	1k		1
R533	ERD16TJ102	1k		1
R534	ERD16TJ222	2.2k		1
R535	ERD16TJ223	22k		1
R536	ERD16TJ333	33k		1
R537	ERD16TJ222	2.2k		1
R538	ERD16TJ223	22k		1
R539	ERD16TJ333	33k		1
R540	ERD16TJ332	3.3k		1
R541	ERD16TJ472	4.7k		1
R542	ERD16TJ222	2.2k		1
R543	ERD16TJ472	4.7k		1
R544	ERD16TJ334	330k		1
R545	ERD16TJ333	33k		1
R546	ERD16TJ103	10k		1
R547	ERD16TJ153	15k		1
R548	ERD16TJ103	10k		1
R549	ERD16TJ681	680		1
R550	ERD16TJ681	680		1
R551	ERD16TJ332	3.3k		1
R552	ERD16TJ683	68k		1
R553	ERD16TJ823	82k		1
R554	ERD16TJ224	220k		1
R555	ERD16TJ474	470k		1
R556	ERD16TJ563	56k		1
R557	ERD16TJ184	180k		1
R558	ERD16TJ823	82k		1
R559	ERD16TJ683	68k		1
R560	ERD16TJ823	82k		1
R561	ERD16TJ224	220k		1
R562	ERD16TJ823	82k		1
R563	ERD16TJ474	470k		1
R564	ERD16TJ184	180k		1
R565	ERD16TJ563	56k		1
R566-R569	Not Used			
R570	ERD16TJ102	1k		1
R571	ERD16TJ102	1k		1
R572-R574	ERD16TJ104	100k		3
R575	ERD16TJ332	3.3k		1
R576	ERD16TJ102	1k		1
R577-R583	Not Used			
R584	ERD16TJ563	56k		1
R585	Not Used			
R586	ERD16TJ183	18k		1
R587	Not Used			
R588	ERD16TJ103	10k		1
R589	ERD16TJ103	10k		1
		(CAPACITORS)		
C400	Not Used			
C401	Not Used			
C402	ECEA1EU470	47	S	1
C403	ECEA1EU470	47	S	1
C404	ECEA1HU220	22	S	1
C405	ECEA1HU220	22	S	1
C406	ECEA1HN2R2S	2.2		1
C407	ECEA1EU101	100	S	1
C408	Not Used			
C409	ECQM1H222JV	0.0022		1
C410	ECKD1H223MD	0.022		1
C411	Not Used			
C412	Not Used			

Ref. No.	Part No.	Value, Part Name & Description	Pcs
C413	ECKD1H223MD	0.022	1
C414	Not Used		
C415	Not Used		
C416	Not Used		
C417	ECKD1H102JA	0.001	1
C418	Not Used		
C419	Not Used		
C420	ECQM1H102JV	0.001	1
C421	ECQM1H102JV	0.001	1
C422-C426	ECQV1H273JZ	0.027	5
C427	ECKD1H102JA	0.001	1
C428	ECKD1H332KB	0.0033	1
C429	ECKD1H102JA	0.001	1
C430	ECKD1H332KB	0.0033	1
C431	ECFD1C104KD	0.1	1
C432	ECFD1C104KD	0.1	1
C433	ECKD1H332KB	0.0033	1
C434	ECQV1H333JZ	0.033	1
C435	Not Used		
C436	Not Used		
C437	Not Used		
C438-C441	ECQM1H222JV	0.0022	4
C442	ECFD1C104KD	0.1	1
C443	ECQV1H683JZ	0.068	1
C444	ECFD1C104KD	0.1	1
C445	ECQV1H473JZ	0.047	1
C446	Not Used		
C447	ECKD1H223MD	0.022	1
C448	ECKD1H223MD	0.022	1
C449	Not Used		
C450	ECKD1H103KB	0.01	1
C451	ECKD1H223MD	0.022	1
C452	Not Used		
C453-C456	ECKD1H223MD	0.022	4
C457	Not Used		
C458-C464	ECKD1H223MD	0.022	7
C465	ECEA1CSS102	1000	1
C466-C469	Not Used		
C470	ECKD1H102JA	0.001	1
C471	ECKD1H102JA	0.001	1
		(OTHERS)	
1	PQDF996Z	Shaft	2
2	PQUB11Z	Plastic Parts, Latch	2
CN3	PQJP45S30Z	Connector, 45P	1
CN4	PQJP90S30Z	Connector, 90P	1
		LC (1,2) BOARD PARTS	
PCB4	KX-T123270	LC P.C. Board Ass'y (NLA) (Supply by business route)	2
		(ICs)	
IC300	PQVI671152F	IC	1
IC301	PQVIHD7LS08P	IC	1
IC302	PQVIHD7LS08P	IC	1
IC303	PQVIHD7L640P	IC	1
IC304	PQVIHD7LS04P	IC	1
IC305	PQVIHD7L244P	IC	1
		(TRANSISTORS)	
Q300A-Q300H	2SA937	Transistor (Si)	8
Q301A-Q301H	2SB644	Transistor (Si) *	8
Q302A-Q302H	2SD639	Transistor (Si) *	8

Ref. No.	Part No.	Part Name & Description	Pcs
Q303A-Q303H, Q304A-Q304H, Q305A-Q305H	2SC2021	Transistor (Si)	24
Q306A-Q306H	UN1122	TRansistor (Si)	8
Q307A-Q307H	DTC124EA	TRansistor (Si)	8
Q308A-Q308H	Not Used		
Q309A-Q309H	Not Used		
Q310A-Q310H	Not Used		
Q311A	DTC124EA	Transistor (Si)	1
Q311B	DTC124EA	Transistor (Si)	1
Q312A	DTA124EA	Transistor (Si)	1
Q312B	DTA124EA	Transistor (Si)	1
		(DIODES)	
D300A-D300H, D301A-D301H	MA4047	Diode (Si)	16
D302A-D302H,	1SS131	Diode (Si)	8
D303A-D303H, D304A-D304H	Not Used		
D305A-D305H	1SS131	Diode (Si)	8
D306A-D306H	Not Used		
D307A-D307H	MA4056	Diode (Si)	8
D308A-D308H, D309A-D309H, D310A-D310H, D311A-D311H, D312A-D312H D313, D314A, D314B	1SS131	Diode (Si)	43
		(VARISTORS)	
ZNR 30A-ZNR 30H, ZNR 31A-ZNR 31H, ZNR32, ZNR33	ERZC03DK241	Varistor	18
		(THERMISTORS)	
PTH 30A-PTH 30H	PQRPAR8R2M	Thermistor	8

Ref. No.	Part No.	Value, Part Name and Description		Pcs
		(COMPONENT COMBINATIONS)		
Z300	EXBP88472K	Resistor Array	S	1
Z301	PQRS8B8102J	Resistor Array		1
Z302	EXBP84103K	Resistor Array	S	1
		(PHOTO ELECTRIC TRANSDUCERS)		
PC 300A-PC 300H	PQVIPC817K	Photo Coupler	S	8
		(CRYSTAL OSCILLATOR)		
X300	PQVCX4000N8Z	Crystal Oscillator		1
		(TRANSFORMERS)		
T300A-T300H	ETA14Y85AY	Transformer		8
T301A-T301H	ETE13K38AY	Transformer		8
		(COILS)		
L300A-L300H, L301A-L301H,	PQLQZM2R2M	Choke Coil		16
		(RELAYS)		
RLY 30A-RLY 30H	PQSL41Z	Relay	*	8
RLY31A	PQSL49Z	Relay	⚠	1
RLY31B	PQSL49Z	Relay	⚠	1
		(RESISTORS)		
R300A-R300H	ERD16TJ330	33		8
R301A-R301H	ERD16TJ220	22		8
R302A-R302H, R303A-R303H	ERD16TJ682	6.8k		16
R304A-R304H	ERD16TJ220	22		8
R305A-R305H	ERD16TJ330	33		8
R306A-R306H	PQRD2TJ102	1k		8
R307A-R307H	ERD16TJ153	15k		8
R308A-R308H	ERD16TJ123	12k		8
R309A-R309H	ERD16TJ101	100		8
R310A-R310H	ERD16TJ473	47k		8
R311A-R311H, R312A-R312H	ERD16TJ121	120		16
R313A-R313H	ERD16TJ222	2.2k		8
R314A-R314H	ERD16TJ221	220		8
R315A-R315H	ERD16TJ472	4.7k		8

Ref. No.	Part No.	Value, Part Name & Description		Pcs
R316A-R316H, R317	ERD16TJ103	10k		9
R318	Not Used			
R319	ERD16TJ472	4.7k		1
R320	Not Used			
R321	ERD16TJ472	4.7k		1
R322	Not Used			
R323	ERD16TJ103	10k		1
R324	Not Used			
R325	Not Used			
R326	ERD16TJ105	1M		1
R327-R331	ERD16TJ103	10k		5
		(CAPACITORS)		
C301A-C301H	ECEA1HU3R3	3.3	S	8
C302A-C302H	ECEA1HU2R2	2.2		8
C303A-C303H	ECEA1HU3R3	3.3	S	8
C304A-C304H	ECEA1HN4R7S	4.7		8
C305A-C305H, C306A-C306H	ECEA1HU010	1		16
C307A-C307H, C308A-C308H	ECKD1H103KB	0.01		16
C309	ECCD1H221J	220P		1
C310	ECEA1HU100	10		1
C311	Not Used			
C312	Not Used			
C313	ECKD1H223MD	0.022		1
C314	Not Used			
C315	Not Used			
C316	Not Used			
C317	PQCBC1C103MY	0.01		1
C318	ECEA1EU101	100		1
C319	Not Used			
C320	ECEA1EU470	47	S	1
C321	ECEA1EU101	100		1
C322	ECEA1EU101	100		1
C323	Not Used			
C324	Not Used			
C325	ECCD1H220JC	22P		1
C326	ECCD1H220JC	22P		1
C327A-C327H, C328A-C328H	ECKD1H471KB	470P		16
		(OTHERS)		
1	PQDF996Z	Shaft		2
2	PQUB11Z	Plastic Parts, Latch		2
CNA	PQJS50Q30Y	Socket, 50P		1
CNB	PQJP8S30Z	Connector, 8P		1
CNC	PQJP45S30Z	Connector, 45P		1

Ref. No.	Part No.	Part Name & Description		Pcs
		CO-1 BOARD PARTS		
PCB5	KX-T123280	CO-1 P.C. Board Ass'y (NLA) (Supply by business route)		1
		(ICs)		
IC200A-IC200D, IC201A-IC201D	PQVINJM4558D	IC		8
IC202A-IC202D	PQVINJ7301D	IC		4
IC203	PQVIBU 3149	IC		1
IC204	PQVI672191F	IC		1
IC205	PQVIHD7L640P	IC		1
IC206	PQVIHD7LS08P	IC		1
IC207	PQVIHD7LS04P	IC		1
		(TRANSISTORS)		
Q200A-Q200D	2SC2590	Transistor (Si)	⚠ S	4
Q201A-Q201D	Not Used			
Q202A-Q202D, Q203A-Q203D Q204A-Q204D	DTC124EA	Transistor (Si)		12
		(DIODES)		
D201A-D201D	MA4150	Diode (Si)	⚠	4
D202A-D202D	Not Used			
D203A-D203D	PQVDS1YB40F1	Diode (Si)	⚠	4
D204A-D204D, D205A-D205D	MA4047	Diode (Si)		8
D206A-D206D	1SS131	Diode (Si)		4
D207A-D207D	Not Used			
D208A-D208D	PQVDSV03YSW	Diode (Si)	⚠	4
D209A-D209D, D210A-D210D, D211A-D211D, D212A-D212D	1SS131	Diode (Si)	⚠	16
D213A-D213D	Not Used			
D214A-D214D, D215A-D215D, D216A-D216D	1SS131	Diode (Si)		12
		(PHOTO ELECTRIC TRANSDUCERS)		
PC200A-PC200D	PQVIPC817K	Photo Coupler	⚠ S	4
PC201A-PC201D	PQVITLP521	Photo Coupler	⚠	4

Ref. No.	Part No.	Value, Part Name & Description	Pcs
		(VARISTORS)	
ZNR 20A-ZNR 20D, ZNR 21A-ZNR 21D	PQVDDSS401M	Varistor ⚠	8
ZNR 22A-ZNR 22D	ERZC07DK820	Varistor ⚠	4
		(CERAMIC FILTER)	
X201	PQVBFC3584A1	Ceramic Filter	1
		(RELAYS)	
RLY 20A-RLY 20D	PQSL34Z	Relay ⚠	4
RLY 21A-RLY 21D	PQSL63Z	Relay ⚠	4
RLY 22A-RLY 22D	PQSL41Z	Relay ⚠	4
		(TRANSFORMERS)	
T200A-T200D	ETA14Y85AY	Transformer ⚠	4
		(COILS)	
L200A-L200D, L202A-L202D	PQLQZL101K	Choke Coil ⚠	8
L201A-L201D, L203A-L203D	PQLQZK100K	Choke Coil ⚠	8
L204A-L204D, L205A-L205D	PQLQZK220K	Choke Coil	8
		(RESISTORS)	
R200A-R200D	ERD16TJ151	150 ⚠	4
R201A-R201D	ERDS1TJ223	22k ⚠	4
R202A-R202D	ERDS2TJ102	1k ⚠	4
R203A-R203D	ERD16TJ5R6	5.6 ⚠	4
R204A-R204D	ERD16TJ822	8.2k ⚠	4
R205A-R205D	ERD25TJ330	33 ⚠	4
R206A-R206D	ERD16TJ473	47	4
R207A-R207D	ERD16TJ472	4.7k	4
R208A-R208D	ERD16TJ473	47 ⚠	4
R209A-R209D	Not Used		
R210A-R210D, R211A-R211D	ERO16CKF1211	1.21k	8

Ref. No.	Part No.	Value	Pcs
R212A-R212D, R213A-R213D	ERO16CKF1003	100k	8
R214A-R214D	Not Used		
R215A-R215D, R216A-R216D	ERO16CKF1003	100k	8
R217A-R217D	Not Used		
R218A-R218D	ERO16CKF2613	261k	4
R219A-R219D	ERD16TJ102	1k	4
R220A-R220D, R221A-R221D	ERO16CKF1211	1.21k	8
R222A-R222D	Not Used		
R223A-R223D, R224A-R224D, R225A-R225D, R226A-R226D	ERO16CKF1003	100k	16
R227A-R227D	Not Used		
R228A-R228D	ERO16CKF2613	261k	4
R229A-R229D	ERD16TJ391	390	4
R230A-R230D	ERD16TJ152	1.5k	4
R231A-R231D	Not Used		
R232A-R232D	ERD16TJ471	470	4
R233A-R233D	ERD16TJ122	1.2k	4
R234A-R234D	Not Used		
R235A-R235D	ERD16TJ471	470	4
R236A-R236D	ERD16TJ122	1.2k	4
R237A-R237D	ERD16TJ105	1M	4
R238A-R238D	Not Used		
R239A-R239D	ERD16TJ102	1k ⚠	4
R240	Not Used		
R241	Not Used		
R242	Not Used		
R243	ERD16TJ472	4.7k	1
R244	Not Used		
R245A-R245D	ERD16TJ105	1M	4
R246	ERD16TJ103	10k	1
R247-R250	ERD16TJ223	22k	4
R251	ERD16TJ101	100	1
R252	ERD16TJ105	1M	1
R253A-R253D, R254	ERD16TJ103	10k	6
R255	Not Used		
R256	Not Used		
R257	Not Used		
R258	ERD16TJ102	1k	1
R259	Not Used		
R260	ERD16TJ470	47	1

Ref. No.	Part No.	Value, Part Name & Description	Pcs
R261	ERD16TJ184	180k	1
		(CAPACITORS)	
C200A-C200D	ECQE1104KN	0.1	4
C201A-C201D	ECQE2474KF	0.47 ⚠	4
C202A-C202D, C203A-C203D	ECEA1HU220	22 ⚠	8
C204A-C204D	ECQV1H104JZ	0.1	4
C205A-C205D	ECEA1HU220	22 ⚠	4
C206A-C206D	ECKD1H102JA	0.001	4
C207A-C207D, C208A-C208D	ECFD1E683MD	0.068	8
C209A-C209D, C210A-C210D	ECCD1H560JC	56P	8
C211A-C211D	ECFD1E333KD	0.033	4
C212A-C212D	Not Used		
C213A-C213D	ECFD1E183KD	0.018	4
C214A-C214D	Not Used		
C215A-C215D	ECFD1E183KD	0.018	4
C216	Not Used		
C217	ECKD1H223MD	0.022	1
C218	Not Used		
C219	ECKD1H223MD	0.022	1
C220	ECKD1H223MD	0.022	1
C221	ECKD1H223MD	0.022	1
C222	ECKD1H103KB	0.01	1
C223	Not Used		
C224	Not Used		
C225A-C225D	ECKDKC222KB	0.0022 ⚠	4
C226	ECEA1EU101	100	1
C227	Not Used		
C228	ECEA1EU470	47 S	1
C229	ECEA1EU470	47 S	1
C230	ECEA1EU101	100	1
C231	ECEA1CSS102	1000	1
C232	Not Used		
C233-C237	Not Used		
C238A-C238D	ECKD1H103KB	0.01	4
C239	ECEA1HU100	10	1
		(OTHERS)	
1	PQDF996Z	Shaft	2
2	PQUB11Z	Plastic Parts, Latch	2
CNB	PQJP8S30Z	Connector, 8P	1
CNC	PQJP45S30Z	Connectro, 45P	1
MJ1-4	PQJJ1TA11Z	Jack ⚠	4

Ref. No.	Part No.	Part Name & Description	Pcs
CO-2 BOARD PARTS			
PCB6	KX-T123281	CO-2 P.C. Board Ass'y (NLA) (Supply by business route)	1
		(ICs)	
IC200A-IC200B, IC201A-IC201B	PQVINJM4558D	IC	4
IC202A	PQVINJ7301D	IC	1
IC202B	PQVINJ7301D	IC	1
IC203	PQVIBU3149	IC	1
IC204	PQVI672191F	IC	1
IC205	PQVIHD7L640P	IC	1
IC206	PQVISN7LS08N	IC	1
IC207	PQVIHD7LS04P	IC	1
		(TRANSISTORS)	
Q200A	2SC2590	Transistor (Si) ⚠ S	1
Q200B	2SC2590	Transistor (Si) ⚠ S	1
Q201A	Not Used		
Q201B	Not Used		
Q202A, Q202B, Q203A, Q203B, Q204A, Q204B	DTC124EA	Transistor (Si)	6
			1
		(DIODES)	
D201A	MA4150	Diode (Si) ⚠	1
D201B	MA4150	Diode (Si) ⚠	1
D202A	Not Used		
D202B	Not Used		
D203A	PQVDS1YB40F1	Diode (Si) ⚠	1
D203B	PQVDS1YB40F1	Diode (Si) ⚠	1
D204A, D204B, D205A, D205B	MA4047	Diode (Si)	4
D206A	1SS131	Diode (Si)	1
D206B	1SS131	Diode (Si)	1
D207A	Not Used		
D207B	Not Used		
D208A	PQVDSV03YSW	Diode (Si) ⚠	1
D208B	PQVDSV03YSW	Diode (Si) ⚠	1
D209A, D209B, D210A, D210B, D211A, D211B, D212A, D212B	1SS131	Diode (Si) ⚠	8
D213A	Not Used		
D213B	Not Used		
D214A, D214B, D215A, D215B, D216A, D216B	1SS131	Diode (Si)	6
		(CERAMIC FILTER)	
X201	PQVBFC3584A1	Ceramic Filter	1
		(PHOTO ELECTRIC TRANSDUCERS)	
PC200A	PQVIPC817K	Photo Coupler ⚠ S	1
PC200B	PQVIPC817K	Photo Coupler ⚠ S	1
PC201A	PQVITLP521	Photo Coupler ⚠	1
PC201B	PQVITLP521	Photo Coupler ⚠	1

Ref. No.	Part No.	Value, Part Name & Description	Pcs
		(VARISTORS)	
ZNR20A	PQVDDSS401M	Varistor ⚠	4
ZNR20B			
ZNR21A			
ZNR21B			
ZNR22A	ERZC07DK820	Varistor ⚠	1
ZNR22B	ERZC07DK820	Varistor ⚠	1
			1
		((RELAYS)	
RLY20A	PQSL34Z	Relay ⚠ S	1
RLY20B	PQSL34Z	Relay ⚠ S	1
RLY21A	PQSL63Z	Relay ⚠	1
RLY21B	PQSL63Z	Relay ⚠	1
RLY22A	PQSL41Z	Relay ⚠	1
RLY22B	PQSL41Z	Relay ⚠	1
		(TRANSFORMERS)	
T200A	ETA14Y85AY	Transformer ⚠	1
T200B	ETA14Y85AY	Transformer ⚠	1
		(COILS)	
L200A, L200B, L202A, L202B	PQLQZL101K	Choke Coil ⚠ S	4
L201A, L201B, L203A, L203B	PQLQZK100K	Choke Coil ⚠ S	4
L204A, L204B, L205A, L205B	PQLQZK220K	Choke Coil	4
		(RESISTORS)	
R200A	ERD16TJ151	150 ⚠	1
R200B	ERD16TJ151	150 ⚠	1
R201A	ERDS1TJ223	22k ⚠	1
R201B	ERDS1TJ223	22k ⚠	1
R202A	ERDS2TJ102	1k ⚠	1
R202B	ERDS2TJ102	1k ⚠	1
R203A	ERD16TJ5R6	5.6 ⚠	1
R203B	ERD16TJ5R6	5.6 ⚠	1
R204A	ERD16TJ822	8.2k ⚠	1
R204B	ERD16TJ822	8.2k ⚠	1
R205A	ERD25TJ330	33 ⚠	1
R205B	ERD25TJ330	33 ⚠	1
R206A	ERD16TJ473	47k	1
R206B	ERD16TJ473	47k	1
R207A	ERD16TJ472	4.7k	1
R207B	ERD16TJ472	4.7k	1
R208A	ERD16TJ473	47k	1
R208B	ERD16TJ473	47k	1
R209A	Not Used		
R209B	Not Used		
R210A, R210B, R211A, R211B	ER016CKF1211	1.21k	4
R212A, R212B, R213A, R213B,	ER016CKF1003	100k	4
R214A	Not Used		
R214B	Not Used		
R215A, R215B, R216A, R216B	ER016CKF1003	100k	4
R217A	Not Used		
R217B	Not Used		
R218A	ER016CKF2613	261k	1
R218B	ER016CKF2613	261k	1
R219A	ERD16TJ102	1k	1
R219B	ERD16TJ102	1k	1

Ref. No.	Part No.	Value	Pcs
R220A, R220B, R221A, R221B	ER016CKF1211	1.21k	4
R222A	Not Used		
R222B	Not Used		
R223A, R223B, R224A, R224B, R225A, R225B, R226A, R226B	ER016CKF1003	100k	8
R227A	Not Used		
R227B	Not Used		
R228A	ER016CKF2613	261k	1
R228B	ER016CKF2613	261k	1
R229A	ERD16TJ391	390	1
R229B	ERD16TJ391	390	1
R230A	ERD16TJ152	1.5k	1
R230B	ERD16TJ152	1.5k	1
R231A	Not Used		
R231B	Not Used		
R232A	ERD16TJ471	470	1
R232B	ERD16TJ471	470	1
R233A	ERD16TJ122	1.2k	1
R233B	ERD16TJ122	1.2k	1
R234A	Not Used		
R234B	Not Used		
R235A	ERD16TJ471	470	1
R235B	ERD16TJ471	470	1
R236A	ERD16TJ122	1.2k	1
R236B	ERD16TJ122	1.2k	1
R237A	ERD16TJ105	1M	1
R237B	ERD16TJ105	1M	1
R239A	ERD16TJ102	1k ⚠	1
R239B	ERD16TJ102	1k ⚠	1
R240A	Not Used		
R240B	Not Used		
R241A	Not Used		
R241B	Not Used		
R242A	Not Used		
R242B	Not Used		
R243	ERD16TJ472	4.7k	1
R244	Not Used		
R245A	ERD16TJ105	1M	1
R245B	ERD16TJ105	1M	1
R246	ERD16TJ103	10k	1
R247, R248, R249, R250	ERD16TJ223	22k	4
R251	ERD16TJ101	100	1
R252	ERD16TJ105	1M	1
R253A	ERD16TJ103	10k	4
R253B, R254, R255			
R256	ERD16TJ223	22k	1
R257	ERD16TJ223	22k	1
R258	ERD16TJ102	1k	1
R259	Not Used		
R260	ERD25TJ470	47	1
R261	ERD16TJ184	180k	1
		(CAPACITORS)	
C200A	ECQE1104KN	0.1 ⚠	1
C200B	ECQE1104KN	0.1 ⚠	1
C201A	ECQE2474KF	0.47 ⚠	1
C201B	ECQE2474KF	0.47 ⚠	1
C202A, C202B, C203A, C203B	ECEA1HU220	22 ⚠	4
C204A	ECQV1H104JZ	0.1	1

Ref. No.	Part No.	Value, Part Name & Description		Pcs
C204B	ECQV1H104JZ	0.1		1
C205A	ECEA1HU220	22	⚠	1
C205B	ECEA1HU220	22	⚠	1
C206A	ECKD1H102JA	0.001		1
C206B	ECKD1H102JA	0.001		1
C207A, C207B, C208A, C208B	ECFD1E683MD	0.068		4
C209A, C209B, C210A, C210B	ECCD1H560JC	56P		4
C211A	ECFD1E333KD	0.033		1
C211B	ECFD1E333KD	0.033		1
C212A	Not Used			
C212B	Not Used			
C213A	ECFD1E183KD	0.018		1
C213B	ECFD1E183KD	0.018		1
C214A	Not Used			
C214B	Not Used			
C215A	ECFD1E183KD	0.018		1
C215B	ECFD1E183KD	0.018		1
C216	Not Used			
C217	ECKD1H223MD	0.022		1
C218	Not Used			
C219, C220, C221	ECKD1H223MD	0.022		3
C222	ECKD1H103KB	0.01		1
C223	Not Used			
C224	Not Used			
C225A	ECKDKC222KB	0.0022	⚠	1
C225B	ECKDKC222KB	0.0022	⚠	1
C226	ECEA1EU101	100		1
C227	Not Used			
C228, C229	ECEA1EU470	47	S	2
C230	ECEA1EU101	100		1
C231	ECEA1CSS102	1000		1
C232-C237	Not Used			
C238A	ECKD1H103KB	0.01		1
C238B	ECKD1H103KB	0.01		1
C239	ECEA1HU100	10		1
C240A	ECKDKC222KB	0.0022		1
C240B	ECKDKC222KB	0.0022		1
		(OTHERS)		
1	PQDF996Z	Shaft		2
2	PQUB11Z	Latch	•	2
3	Not Used			
CNB	PQJP8S30Z	Connector, 8P		1
CNC	PQJP45S30Z	Connector, 45P		1
MJ1,2	PQJJ1TA11Z	Jack, Telephone	⚠	2

POWER BOARD PARTS

PCB7	PQWP7T123210	Power P.C. Board Ass'y (NLA)		1
		(TRANSISTORS)		
Q50	2SC2673	Transistor (Si)		1
Q51	2SB1015	Transistor (Si)		1
Q52	2SA881	Transistor (Si)		1
Q53	2SD1406	Transistor (Si)		1
		(DIODES)		
D50,51	PQVDS3V10LF	Diode (Si)		2
D52,53, D54	1SS131	Diode (Si)		3
D55,56	PQVDS3V10LF	Diode (Si)		2
D57,58	1SR35-200	Diode (Si)		2
LED1-3	LN28RPL	LED	S	3

Ref. No.	Part No.	Value, Part Name & Description		Pcs
		(VARISTOR)		
ZNR50	Not Used		•	
		(RESISTORS)		
R50	ERD16TJ823	82k		1
R51	ERD16TJ103	10k		1
R52	PQRD1VJ1R0	1		1
R53	ERDS1TJ181	180		1
R54,55	ERDS1TJ151	150		2
R56	ERDS1TJ181	180		1
R57	ERD16TJ103	10k		1
R58	PQRD1VJ1R0	1		1
R59	ERD16TJ103	10k		1
R60	ERD16TJ104	100k		1
R61	ERDS1TJ101	100		1
R62	ERD16TJ562	5.6k		1
R63	ERD16TJ822	8.2k		1
R64	ERD16TJ272	2.7k		1
		(CAPACITORS)		
C50	ECET35S153SW	15000		1
C51	Not Used			
C52	EECW0HS105Z	1	S	1
C53	ECEA1AU222	2200		1
C54	ECKD1H102JA	0.01		1
C55	ECEA1VU101	100		1
		(OTHERS)		
CN17	PQJP5D30Z	Connector, 5P		1
CN18	PQJP6D30Z	Connector, 6P		1
CN19	PQJP10D30Z	Connector, 10P		1
CN50	PQJP8D30Z	Connector,8P		1
CN51	PQJP4D30Z	Connector, 4P		1

POWER UNIT PARTS All ⚠

PCB8	PQLP005Z	Power Unit (NLA)		1
		(ICs)		
IC101	PQVIH16664AD	IC	•	1
IC102	Not Used		•	
IC201	PQVIL5431	IC		1
IC202, IC203, IC204	PQVIIR3M02	IC		3
IC205	AN6562	IC	S	3
IC206	PQVIL5431	IC		1
		(TRANSISTORS)		
Q101	2SK800	Transistor (Si)		1
Q102	2SA1015	Transistor (Si)		1
Q103	2SA1015	Transistor (Si)		1
Q104	2SC1815	Transistor (Si)		1
Q105	Not Used		•	
Q201	2SA1015	Transistor (Si)		1
Q202	2SA1020	Transistor (Si)		1
Q203	2SC3568	Transistor (Si)		1
Q204	2SC2750	Transistor (Si)		1
Q205	2SB744	Transistor (Si)		1
Q206	2SC1815	Transistor (Si)		1
Q207	2SA1020	Transistor (Si)		1
Q208	2SC3568	Transistor (Si)		1
Q209	Not Used		•	
Q210	Not Used		•	
Q211	Not Used		•	
Q212	Not Used		•	

Ref. No.	Part No.	Part Name and Description		Pcs
		(DIODES)		
D101	PQVDD5SB60	Diode (Si)		1
D102	PQVD10DF6	Diode (Si)		1
D103	PQVD10DF6	Diode (Si)		1
D104	PQVDERA22-02	Diode (Si)		1
D105	MA4100	Diode (Si)	*	1
D106	1SS131	Diode (Si)		1
D107	Not Used			
D108	PQVDRD18FB	Diode (Si)		1
D109	PQVDRD20JSB	Diode (Si)		1
D110	Not Used		*	
D111	Not Used		*	
D201	PQVDC25P20F	Diode (Si)		1
D202	PQVD11ES2	Diode (Si)		1
D203	PQVDF10P04Q	Diode (Si)		1
D204	PQVDRD6.2ESB	Diode (Si)		1
D205	PQVD11ES2	Diode (Si)		1
D206	1SS92			1
D207	PQVDF10P20F	Diode (Si)	*	1
D208	PQVDRD18JSB	Diode (Si)		1
D209	PQVD11ES2	Diode (Si)		1
D210	PQVDF10P10Q	Diode (Si)		1
D211	PQVDRD13JSB	Diode (Si)		1
D212	Not Used		*	
D213	Not Used		*	
		(PHOTO ELECTRIC TRANSDUCERS)		
PC101,	PQVITLP521	Photo Coupler		1
PC102,	Not Used		*	
PC201	PQVITLP521	Photo Coupler		1
		(THYRISTOR)		
SCR201	PQVDAC12DSM	Thyristor	*	1
		(VARISTOR)		
SA103	ERZC14DK271U	Varister		1
		(COILS & TRANSFORMERS)		
L101	PQLE75	Choke Coil	*	1
L102	PQLE76	Choke Coil	*	1
T103	ETQ16K11AY	Choke Coil	*	1
L201	PQLE74	Choke Coil	*	1
L202	PQLE70	Choke Coil	*	1
L203	ELC08D069	Choke Coil	*	1
L204	PQLE74	Choke Coil	*	1
L205	PQLE71	Choke Coil	*	1
L206	PQLE72	Choke Coil	*	1
L207	ELC08D069	Choke Coil	*	1
L208	PQLE73	Choke Coil	*	1
T101	ETS35K420A	Switching Transformer	*	1
T201	ETH16K33AY	Drive Transformer	*	1
		(VARIABLE RESISTORS)		
VR101	Not Used		*	
VR201	EVM38GA00B53	Semi-Fixed, 5kΩ (B)	S	1
VR202	EVM38GA00B13	Semi-Fixed, 1kΩ (B)	S	1
VR203	PQN80A00B13M	Semi-Fixed, 1kΩ (B)	*	1
VR204	PQN80A00B23M	Semi-Fixed, 2kΩ (B)	*	1
		(OTHERS)		
CR119	PQVDMGC4R3R2	Component Combination		1
CR120	PQVDMGC4R3R2	Component Combination		1
SW101	EST15302T	Switch, Power	S	1
RL201	Not Used		*	
F101	XBA1C50NU100	Fuse, 5A, 125V		1
F201	XBA1C100NU10	Fuse, 10A, 125V		1
CN1	PQJS7R35Z	Connector, 7P	*	1
CN2	PQJS2L47Z	Connector, 2P	*	1
100	PQJA112Z	AC Cord	*	1
101	PQHR104Z	Clamper, AC Cord		1
102	PQHR945Z	Band	*	4

Ref. No.	Part No.	Value		Pcs
TH101	ERTD5FFL5R0P	Thermistor		1
TH102	ERTD5FFL5R0P	Thermistor		1
		(CAPACITORS)		
C101	ECQU1A224MH	0.22		1
C102	ECKDKC472KB	4700P		1
C103	ECKDKC222KB	2200P		1
C104	ECKDKC222KB	2200P		1
C105	ECOS2DG102Y	1000		1
C106	ECQE6103KF	0.01		1
C107	ECKD3A471KBL	470P		1
C108	ECEA1HGA100	10		1
C109	ECQV1H104JZ	0.1	*	1
C110	ECQM1H153JV	0.015		1
C111	ECQM1H152JV	0.0015		1
C112	ECEA1HGA100	10		1
C113	ECEA1HGA100	10		1
C114	Not Used		*	
C115	Not Used		*	
C116	Not Used		*	
C117	Not Used			
C118	Not Used			
C119	Not Used			
C120	Not Used			
C121	ECKDKC472KB	4700P		1
C122	Not Used		*	
C123	Not Used		*	
C124	ECKDKC472KB	4700P		1
C200	Not Used			
C201	ECKD3A102KBN	1000P		1
C202	ECKD3A471KBL	470P		1
C203	ECEA1EG332S	3300		1
C204	ECEA1HGA010	1	*	1
C205	ECEA1EG332S	3300		1
C206	ECQM1H104JV	0.1		1
C207	ECEA1HGA010	1	*	1
C208	ECEA1HGA100	10		1
C209	ECQM1H473JV	0.047		1
C210	ECQM1H153JV	0.015		1
C211	ECQM1H102JV	0.001		1
C212	ECEA1AGA222	2200	*	1
C213	ECQM1H104JV	0.1		1
C214	ECEA1AGA222	2200	*	1
C215	ECEA1HGA100	10		1
C216	ECQM1H473JV	0.047		1
C217	ECQM1H104JV	0.1		1
C218	ECEA1HGA4R7	4.7	*	1
C219	ECQM1H104JV	0.1		1
C220	ECQM1H104JV	0.1		1
C221	ECQM1H102JV	0.001		1
C222	ECEA1EGA222	2200		1
C223	ECEA1EGA222	2200		1
C224	ECEA1EGA222	2200		1
C225	ECEA1HGA010	1	*	1
C226	ECEA1HGA100	10		1
C227	ECQM1H473JV	0.047		1
C228	ECQM1H102JV	0.001		1
C229	ECEA1EGA222	2200		1
C230	ECQM1H104JV	0.1		1
C231	ECEA1EGA222	2200		1
C232	ECEA1HGA100	10		1
C233	ECQE2474KF	0.47	*	1
C234	ECKDKC222KB	2200P		1
C235	Not Used			
C240	ECQV1H105JZ	1	*	1
		(RESISTORS)		
R103	PQRD2VJ473	47k	*	1
R104	PQRD2VJ104	100k	*	1
R105	ERDS1TJ220	22		1
R106	PQRD2VJ100	10	*	1
R107	ERD16TJ683	68k		1
R108	ERD16TJ183	18k	*	1
R109	ERD16TJ472	4.7k		1
R110	ERD16TJ102	1k		1
R111	ERD16TJ221	220		1

Ref. No.	Part No.	Value			Pcs
R112	ERD16TJ103	10k			1
R113	ERD16TJ392	3.9k		*	1
R114	ERD16TJ333	33k			1
R115	ERD16TJ471	470			1
R116	ERD16TJ103	10k			1
R117	ERDS1TJ101	100			1
R118	Not Used			*	
R119	Not Used			*	
R120	Not Used			*	
R121	Not Used			*	
R122	Not Used			*	
R123	Not Used			*	
R124	Not Used			*	
R201	ERG1ANJP220S	22	*	*	1
R202	ERD1TJ100	10			1
R203	ERD16TJ102	1k			1
R204	ER016CKF2002	20k		*	1
R205	ERD16TJ222	2.2k			1
R206	ERD16TJ561	560			1
R207	ERD16TJ471	470			1
R208	ERD16TJ102	1k			1
R209	ERD16TJ223	22k			1
R210	ERD16TJ104	100k			1
R211	ERD16TJ103	10k			1
R212	ERD16TJ103	10k			1
R213	ERD16TJ104	100k			1
R214	ERD16TJ682	6.8k			1
R215	ERD16TJ103	10k			1
R216	ERD16TJ332	3.3k			1
R217	ERD16TJ680	68			1
R218	ERD1TJ102	1k			1
R219	ERD16TJ100	10			1
R220	ERD16TJ470	47			1
R221	ERD16TJ102	1k			1
R222	PQRF2TLJR05	0.05		*	1
R223	ERD16TJ681	680			1
R224	ERD16TJ183	18k			1
R225	ERD16TJ682	6.8k			1
R226	ERD16TJ562	5.6k			1
R227	ERD16TJ330	33		*	1
R228	Not Used				
R229	Not Used				
R230	Not Used				
R231	Not Used				
R232	ERD16TJ103	10k			1
R233	ERD16TJ103	10k			1
R234	ERD16TJ222	2.2k			1
R235	Not Used				
R236	ERD16TJ104	100k			1
R237	ERD16TJ682	6.8k			1
R238	ERD16TJ273	27k			1
R239	ERD16TJ103	10k			1
R240	ERD16TJ183	18k			1
R241	ERD1TJ102	1k			1
R242	ERDS1TJ101	100			1
R243	PQRD3TJ3R3	3.3		*	1
R244	ERDS1TJ150	15			1
R245	ERD16TJ470	47			1
R246	ERD16TJ102	1k			1
R247	ERD16TJ821	820			1
R248	ERD16TJ104	100k			1
R249	ERD16TJ103	10k			1
R250	ERD16TJ103	10k			1
R251	ERD16TJ104	100k			1
R252	ERD16TJ682	6.8k			1
R253	ERD16TJ103	10k			1
R254	ERD16TJ680	68			1
R255	ERD1TJ102	1k			1
R256	ERD16TJ100	10			1
R257	ERD16TJ470	47			1
R258	ERD16TJ332	3.3k			1
R259	PQRF2TLJR05	0.05		*	1
R260	ERD16TJ102	1k		*	1
R261	ERD16TJ223	22k			1
R262	ERD16TJ103	10k			1
R263	ERD16TJ222	2.2k			1

Ref. No.	Part No.	Value			Pcs
R264	ERD16TJ470	47			1
R265	Not Used			*	
R266	Not Used			*	
R267	Not Used			*	
R268	Not Used			*	
R269	Not Used			*	
R270	ERD16TJ153	15k			1
R271	ERD16TJ102	1k			1
R272	ERD16TJ271	270			1
R273	Wire Lead				1
R274	ERD16TJ152	1.5k			1
R275	ERDS1TJ152	1.5k			1
R276	ERD16TJ104	100k			1
R277	ERD16TJ682	6.8k			1
R278	ERD16TJ102	1k			1
R280	ERG2ANJ120	12		*	1